



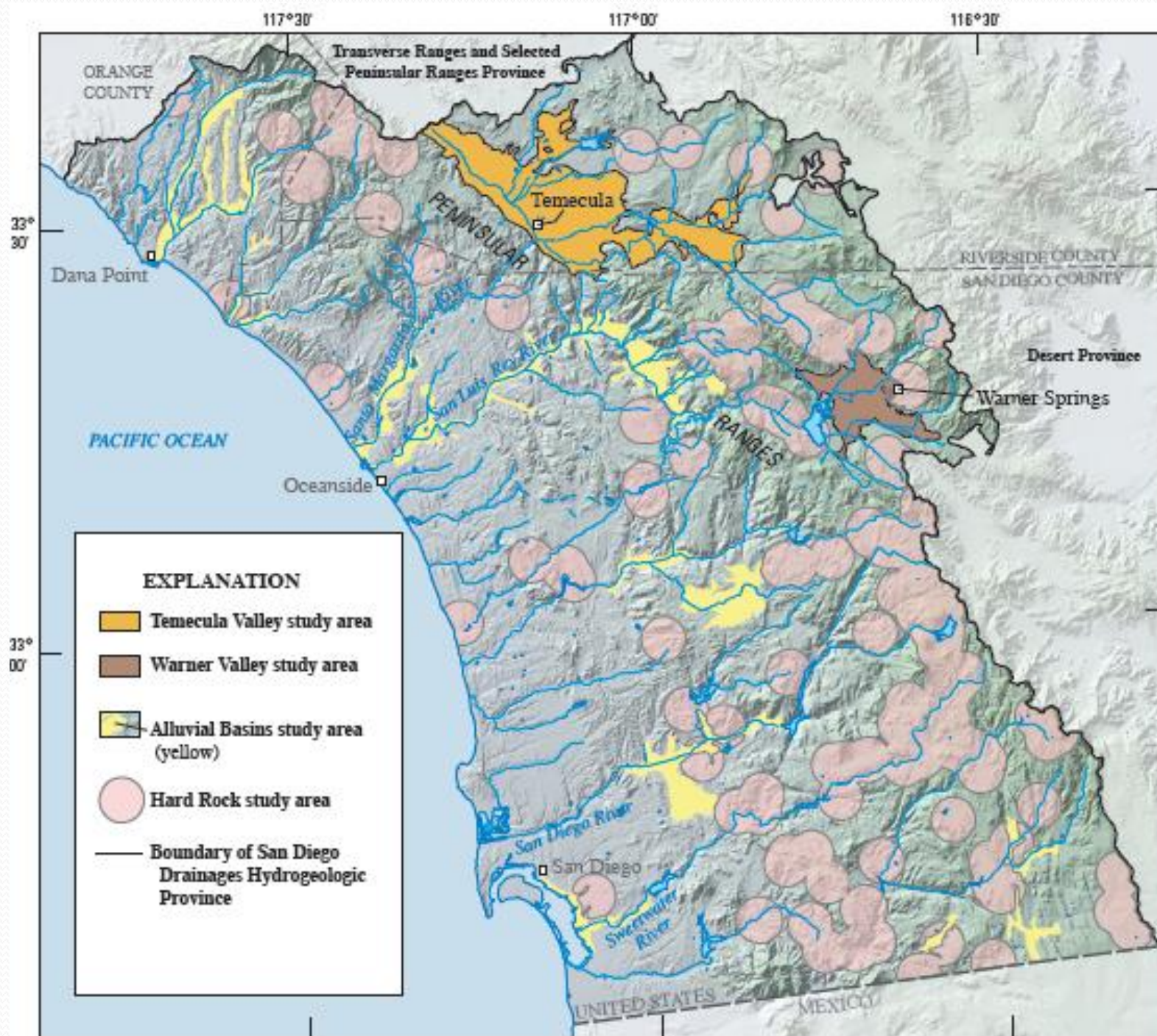
Statewide Development of Salt/Nutrient Management Plans

Informational Item for State Water Resources Control
Board

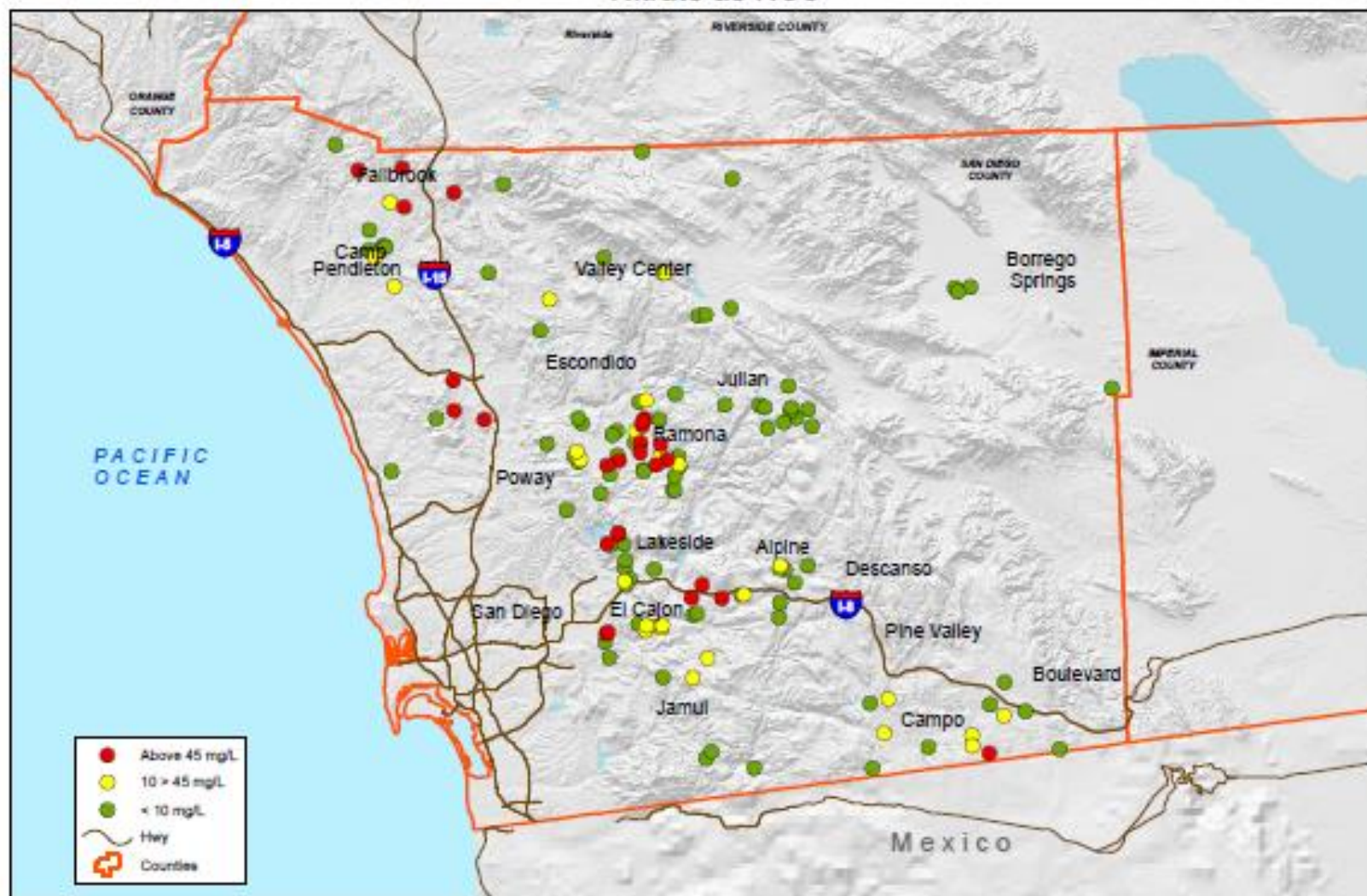
March 5, 2013

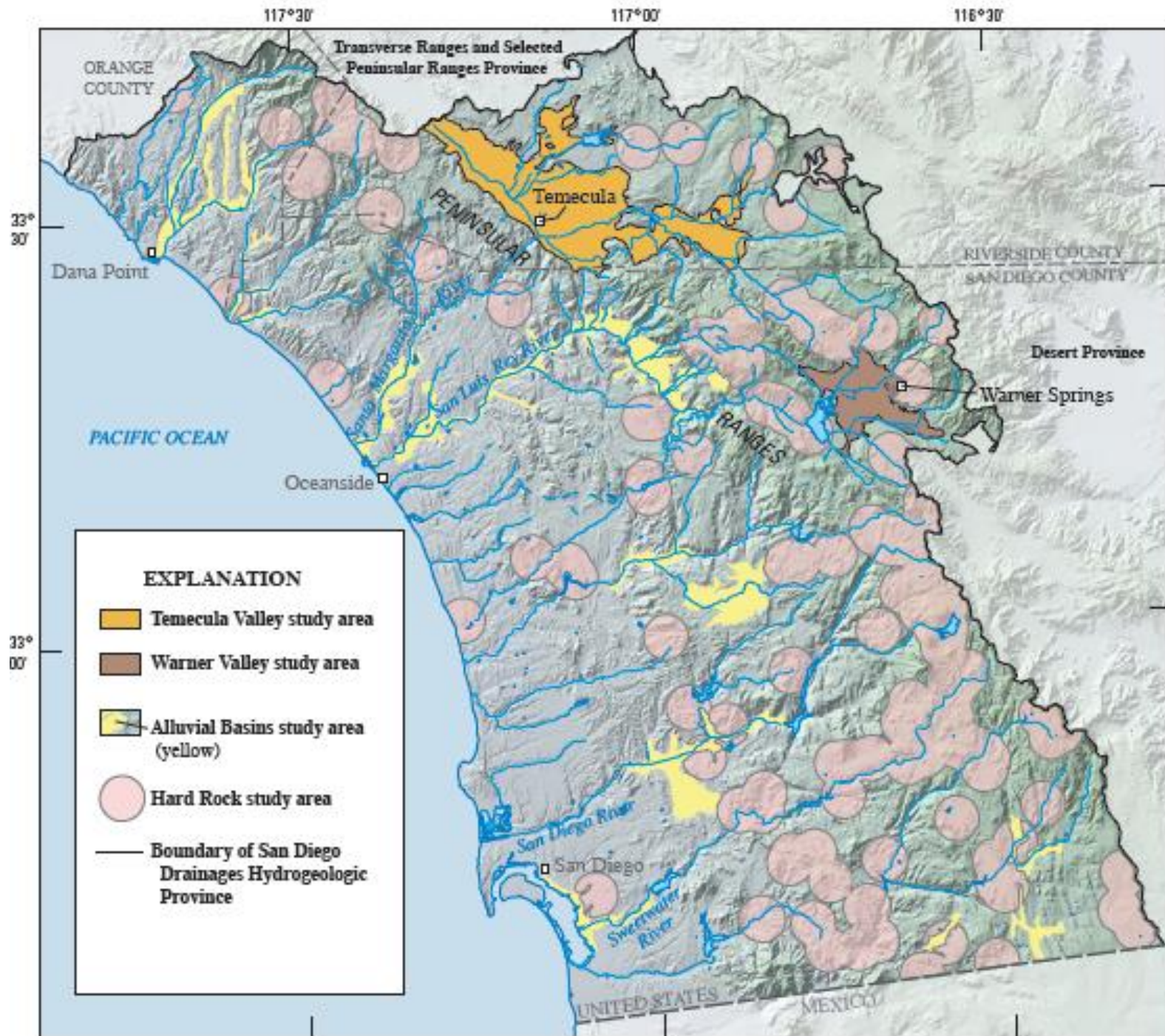
Salt and Nutrient Management Plans

- Required by Recycled Water Policy
- Water and wastewater entities, together with other salt/nutrient contributors, are funding
- Collaborative process open to all stakeholders
- Includes compliance with CEQA
- Submit within five years (May 2014), although Regional Water Board EO may allow a two-year extension (May 2016)
- For each groundwater basin/sub-basin in California
- Once submitted, Regional Water Boards have one year to consider for adoption
- Regional Water Board updates in reverse numerical order



Groundwater Ambient Monitoring and Assessment (GAMA)
Domestic Well Project
San Diego County 2008-2009
Nitrate as NO₃





Region 7

Salt & Nutrient Management Planning

A Progress Report

for the

State Water Resources Control Board

Colorado River Basin Regional Water Board

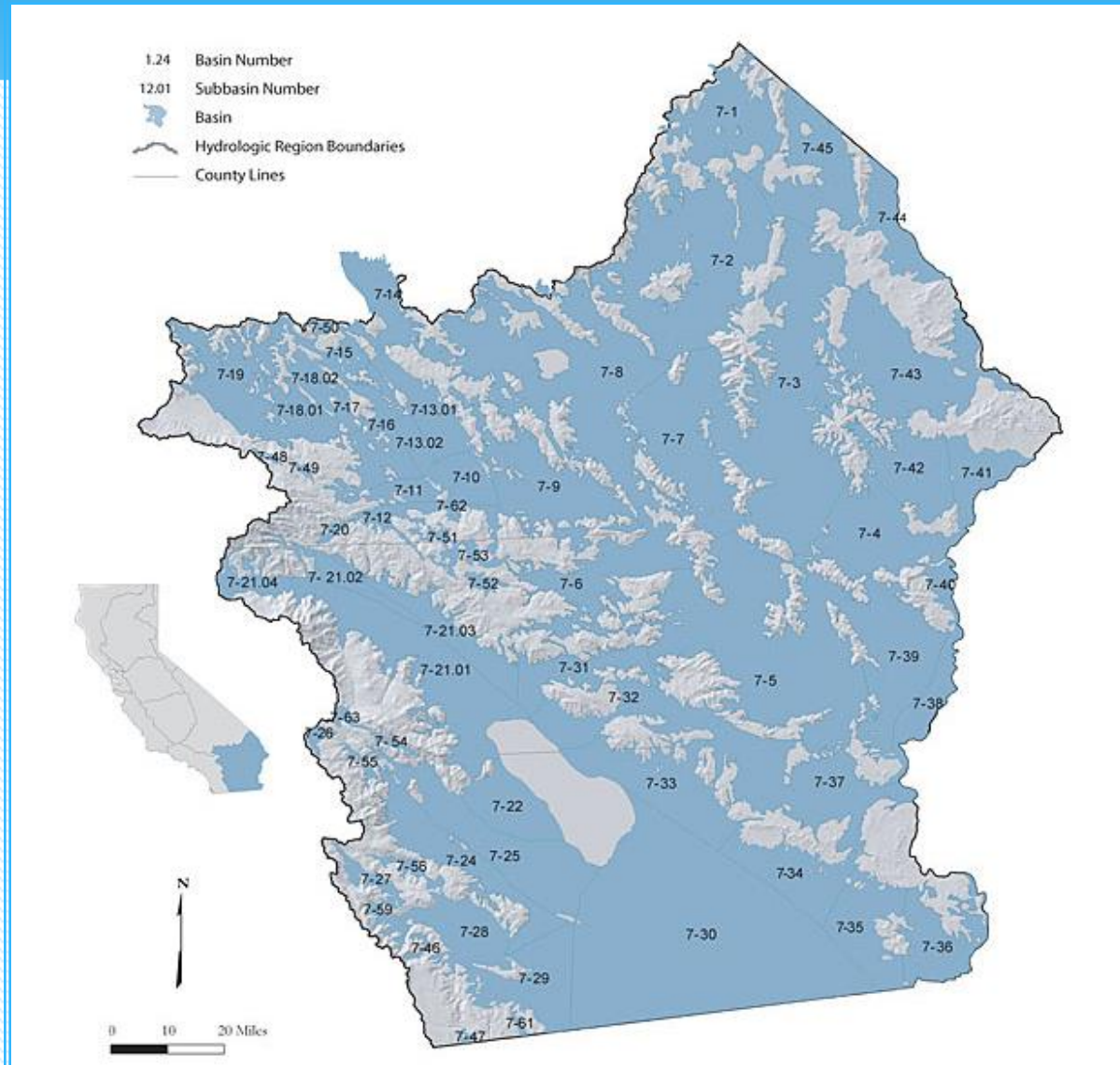
Abdi Haile
Supervising Engineering Geologist

March 5, 2013

Topics

- * **Region 7 Groundwater Basin Map**
- * **Staff Activities**
- * **SNMP Study Areas**
- * **IRWMP Group Activities**
- * **Challenges and Impediments**
- * **SNMP Completion Schedule**
- * **Summary**

Region 7 Groundwater Basin Map

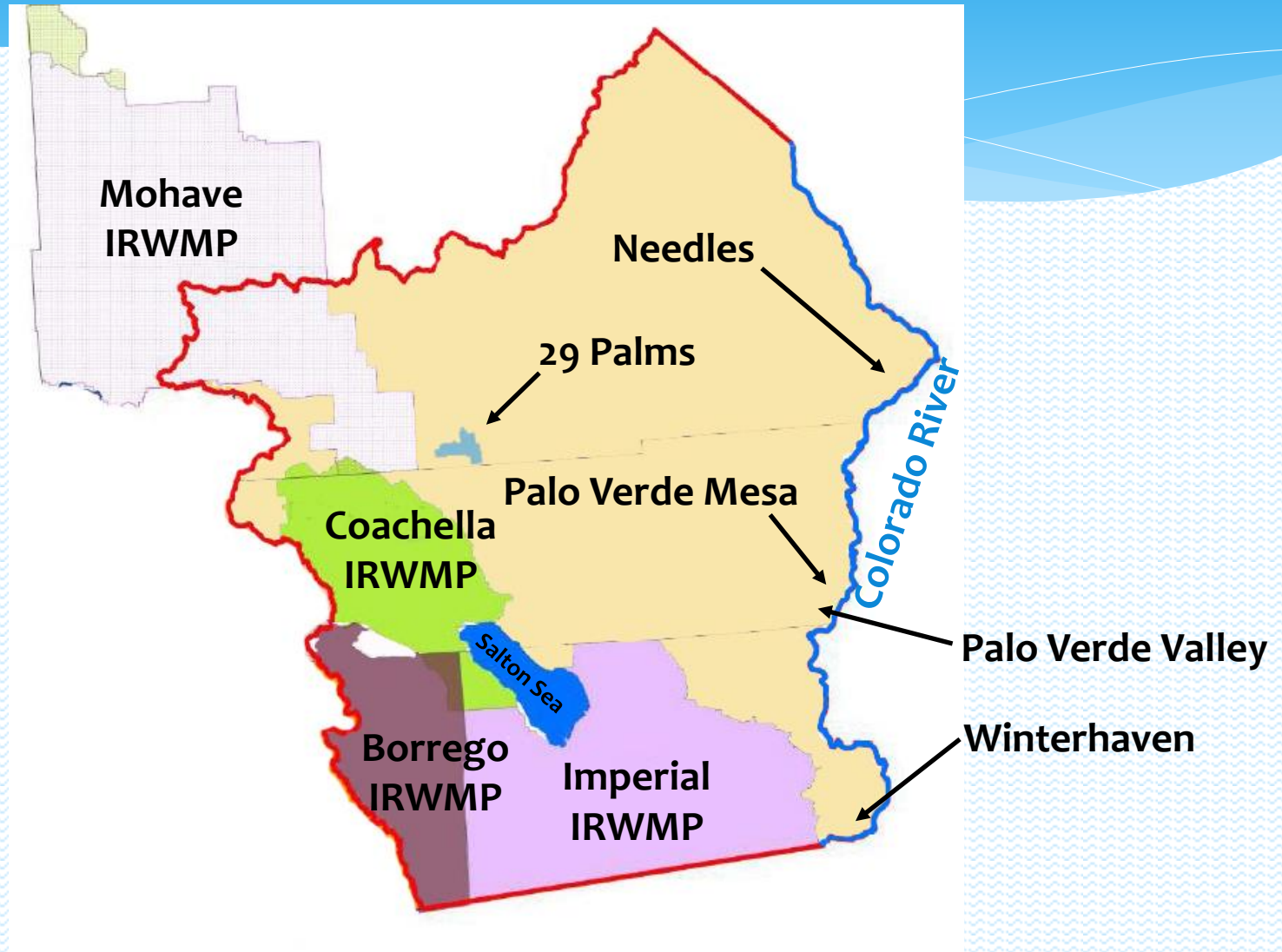


Staff Activities



- * **“Dear Stakeholder” Letter Mailed February 2011**
- * **Attended Multiple IRWMP Meetings & Staff Level Meetings**
- * **Responded to Inquiries and Provided Guidance**
- * **Provided Written Comments on Draft Work Plans**
- * **Provided SNMP Presentation to Regional Board**
- * **Provided Periodic Progress Reports to State Board**

Region 7 SNMP Study Areas



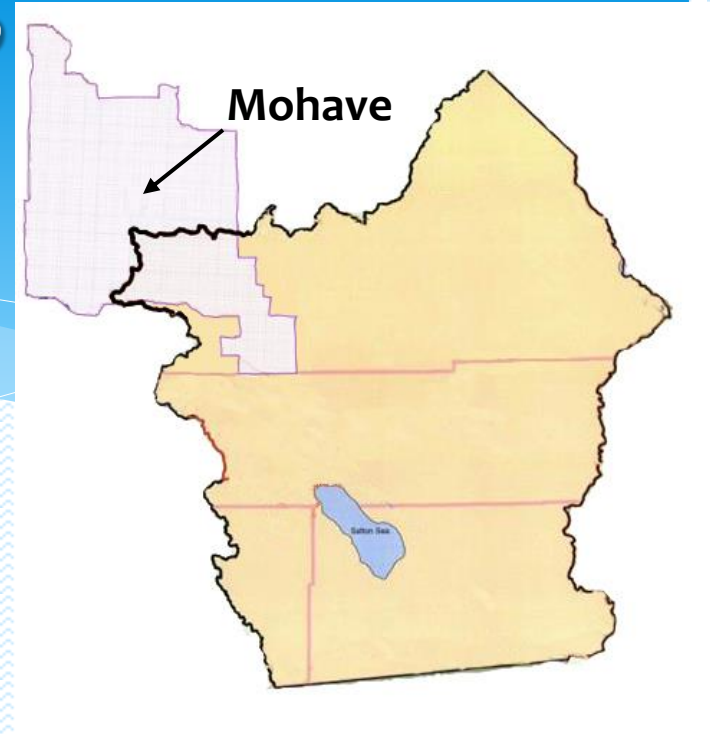
Coachella Valley IRWMP Activities

- * IRWMP Group Formed in 2008
- * Monthly Meetings Conducted
- * Obtained \$1M Prop-84 Planning Grant
- * SNMP Workgroup Formed, 1st Meeting Held In 8/12
- * Draft Work Plan Submitted for Comments 11/12
- * SNMP Stakeholder Workshop #3 Held 11/12
- * SNMP Presentation to Regional Board 1/13
- * Delay in Grant Reimbursement 2/13
- * 3/13 Planning Partners Meeting Canceled
-> IRWMP Grant Reimbursement Delay



Mohave Valley IRWMP Activities

- * IRWMP Group Formed in 2004
- * Majority of Basin in Region 6
- * Plan (IRWMP) Being Updated to Include SNMP
- * SNMP Work Plan Developed
- * Attended Several Meetings With Mohave Staff
- * Presented Work Plan to Region 6 Board



Twentynine Palms SNMP Activities

- * **Water District Partnered With City to Address SNMP**
- * **Not part of any IRWMP Group**
- * **Hired Consultant to Produce SNMP**
- * **Draft SNMP Completed & Under Review by Water District & City**
- * **SNMP Submittal to Region 7 by December 2013**



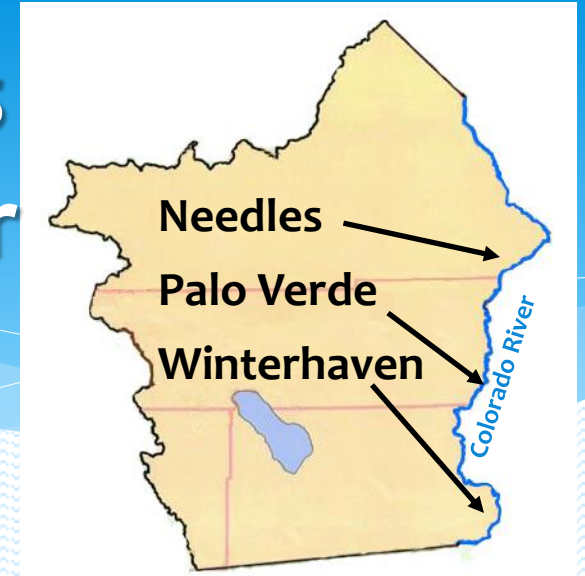
Anza Borrego IRWMP Activities

- * Borrego WD Formed IRWMP Group in 2009
- * Monthly Meetings Conducted
- * Applied For Prop-84 Funding (denied twice)
- * Currently Applying For EPA Funding (STAG Grant)
- * Working With Federal & State Agencies
 - USGS Conducting Extensive Hydrogeologic Investigation completion ~ 12/13

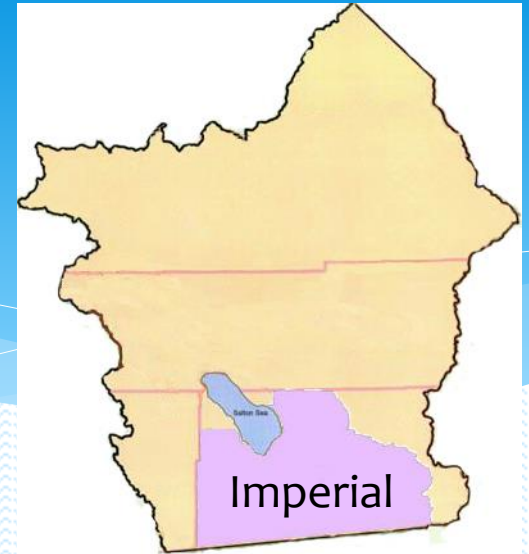


SNMP Activities For Basins Adjacent to Colorado River

- * **RB Staff Driven Effort**
 - > Work With Stakeholders When Available
- * **Implement Programmatic Approach**



Imperial Valley IRWMP Activities



- * **Formed IRWMP Group In 2009**
→ Includes 22 Water Forum Members
- * **Monthly Meetings Conducted**
- * **Obtained \$1M Prop-84 Planning Grant**
- * **IRWMP (completed late 2012) Will be Updated to Include SNMP**
- * **Board Staff Will Provide SNMP Presentation to IRWMP Group in April 2013**

Challenges And Impediments

- * **Money --> All Stakeholders/Basins**
- * **Clarity of Requirements --> All Stakeholders/Basins**
 - Required vs. Suggested Elements ?
 - BPA Process?
 - CEQA Process? Responsibility?
- * **IRWMP Covers Multiple Jurisdictions**
 - > SNMPs must satisfy Multiple RWBs
 - e.g., Mohave

Challenges And Impediments

- * **Reluctant to Participate If GW Considered Unusable**
e.g., Imperial
- * **Sparsely Populated**
e.g., Areas Adjacent to River, Anza Borrego, and Desert Areas to NW
- * **No IRWMP In Remote Locations**
e.g., North, West, and NW Areas of Region
- * **No Jurisdiction Over Tribal Lands**
e.g., Winterhaven

SNMP Completion Schedule

- * Should Meet May 2014 Deadline:

1. Twentynine Palms
2. Mohave
3. Anza Borrego

- * All Other Basins Likely to Require 2-Year “Good-Progress” Extension

- * No Obvious Answers to Some Challenges (\$\$?)

SUMMARY

- * **Region 7 has Four Major IRWMP Groups Currently Working on SNMPs**
- * **Areas Along the Colorado River Are Being Handled Programmatically**
- * **Three Region 7 Groundwater Study Areas Will Complete SNMPs By Deadline**
- * **Other Areas Will Likely Require “Good Progress” Time Extensions**

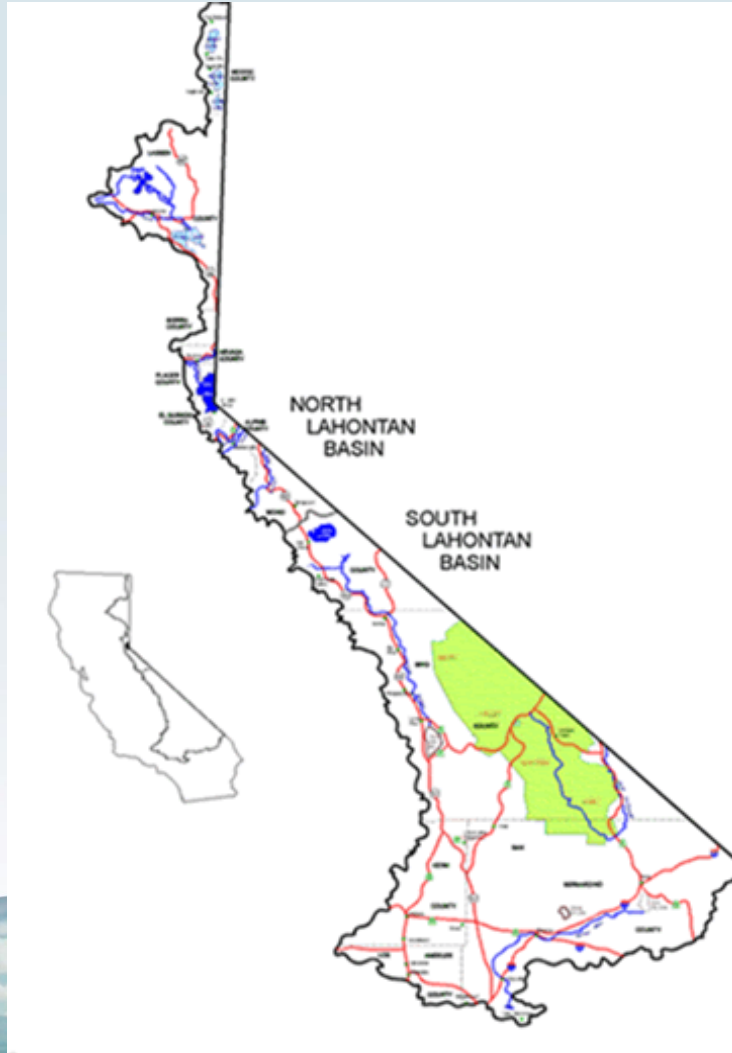
Lahontan Water Board (6)

Update on Salt & Nutrient Management Plans

Patty Zwarts Kouyoumdjian
Executive Officer



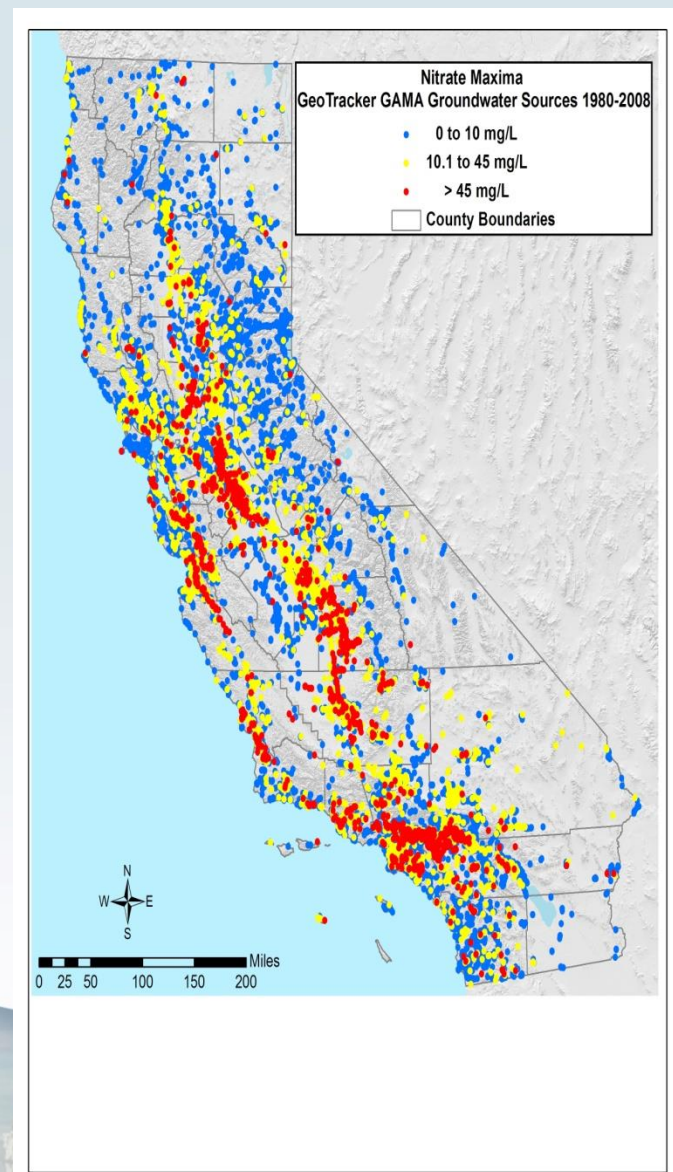
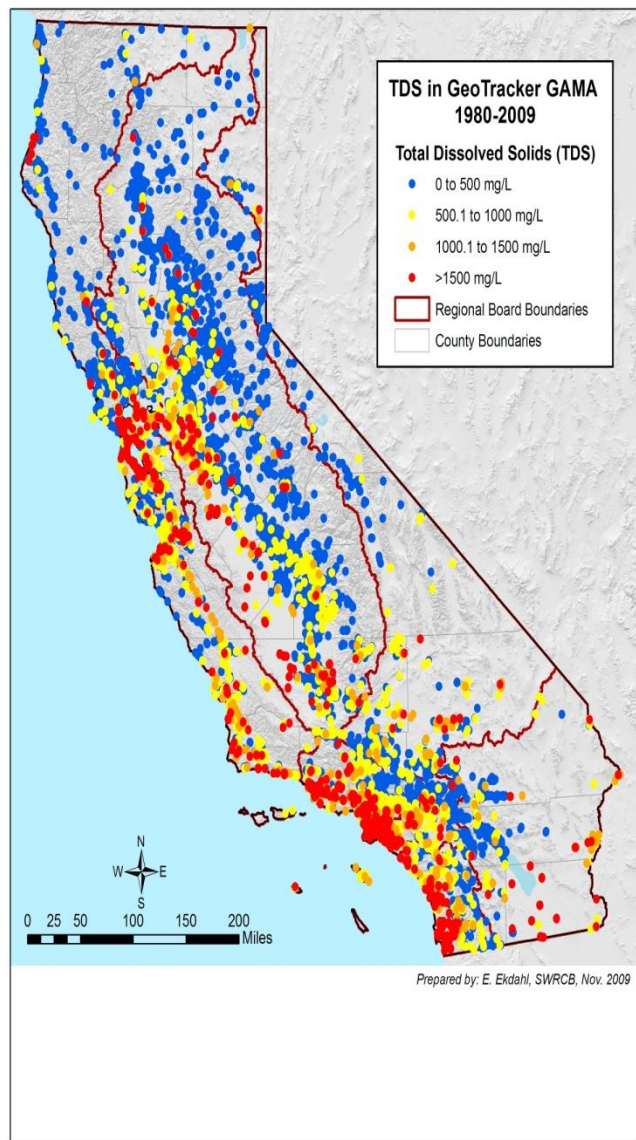
Lahontan Region



About 24% of CA

< 2% of population

**345 groundwater
basins/sub-basins**



Salt & Nutrient Plan Strategy

- Priority Groundwater Basins - Work with Integrated Regional Water Management (IRWM) groups
- Other Basins - Will address in groups as appropriate

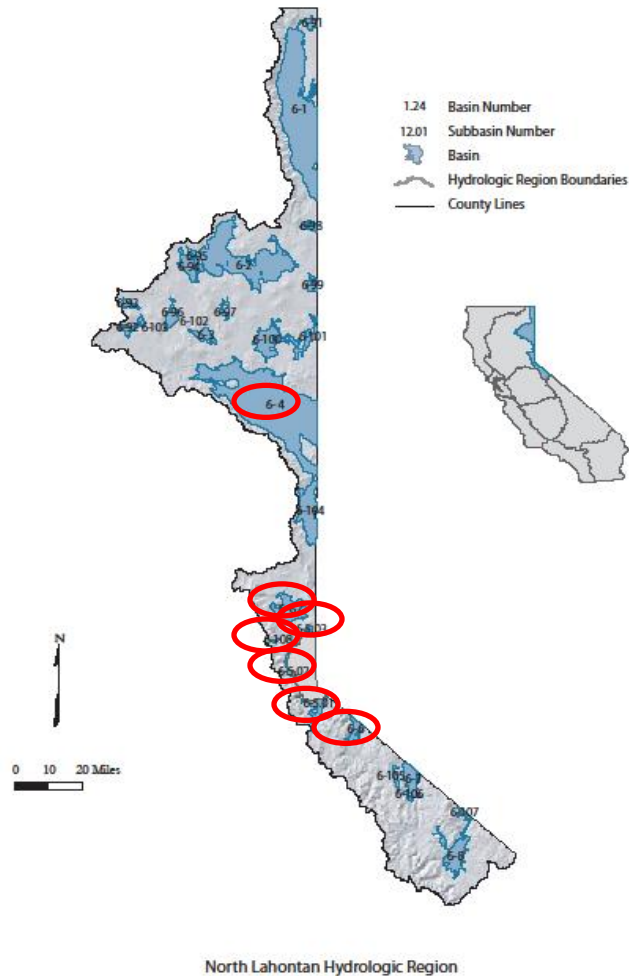


Twelve Priority Basins

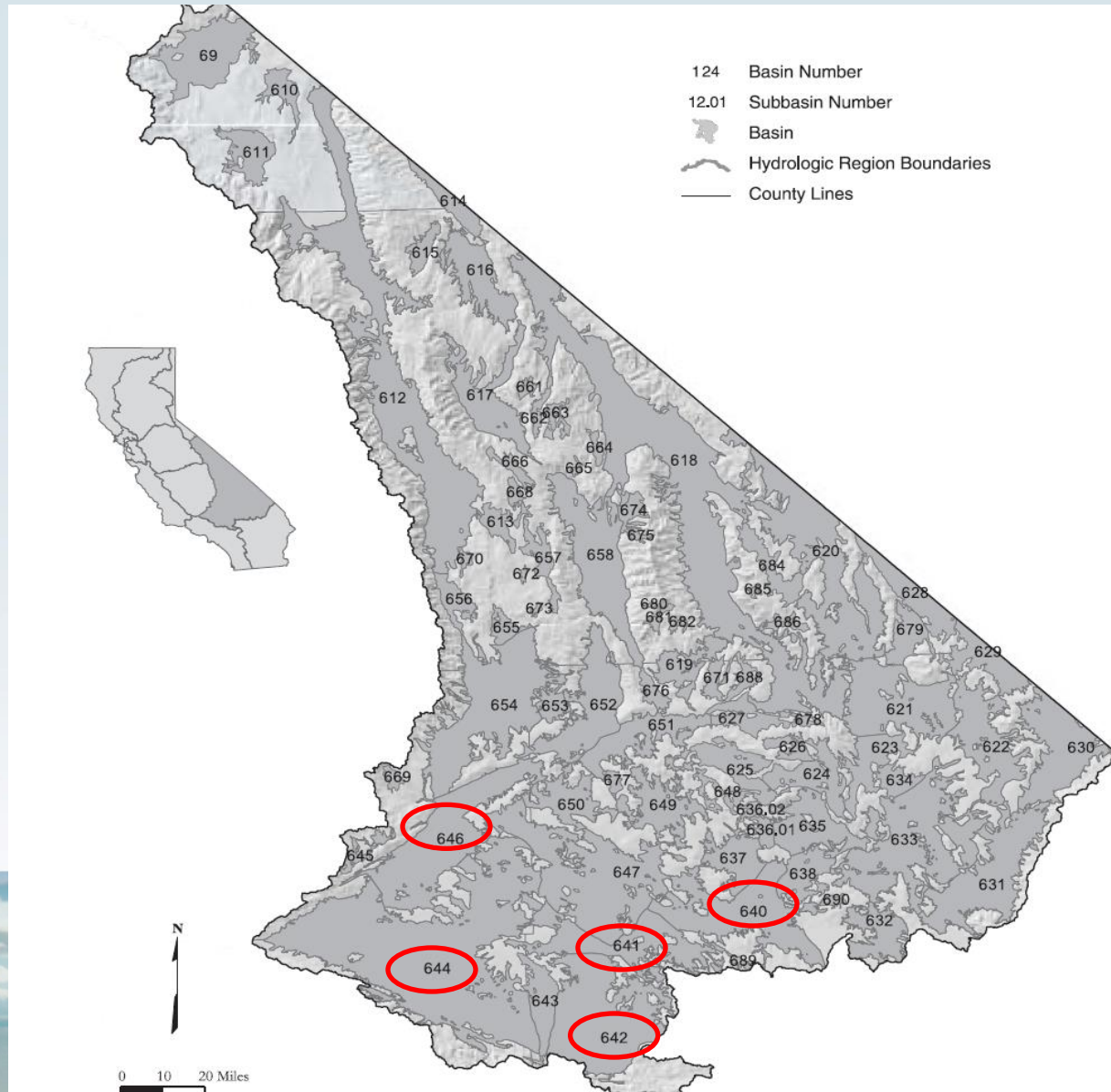
- North Lahontan (5) – Tahoe
North/South/West; Martis/Truckee; Honey Lake
- South Lahontan (7) – Owens, Indian Wells, Tehachapi, Antelope, Lower/Middle/Upper Mojave



North Lahontan



South Lahontan



IRWM Regions

Priority GW Basins

- Lahontan Basins
Honey Lake
- Tahoe Sierra
Tahoe North/South/West
Martis/Truckee
- Inyo Mono
Owens, Indian Wells
- Fremont Valley
Tehachapi ?
- Antelope Valley
Antelope
- Mojave Basin
Lower/Middle/Upper Mojave



Status for Priority Basins

Lahontan Basins (Honey Lake)

DWR grant

Tahoe Sierra (Tahoe N/S/W ;Martis/Truckee)

DWR grant

Inyo Mono (Owens, Indian Wells)

New Indian Wells Group

Fremont Valley (Tehachapi)

draft plan for Fremont

Antelope Valley (Antelope)

concept/scope to Board, DWR
grant, draft plan

Mojave Basin (L/M/U Mojave)

concept/scope to Board; SEP



Our “Other” 333 Basins

- Will address in groups as appropriate
- Reduce the burden on rural communities in the more remote parts of our Region while encouraging water recycling & protecting groundwater quality



Challenges

- Dedicated Staff Funding
- Implementation
- Future IRWM Funding
- Other 333 Basins



Status of Salt and Nutrient Management Plan Development in the Los Angeles Region

Dr. Ginachi Amah, Los Angeles RWQCB &

Ms. Phuong Ly, P.E., Water Replenishment District

The background of the slide is a solid blue color. In the bottom right corner, there are several concentric white circles of varying sizes, resembling ripples on water. These circles are centered around the bottom right corner and extend towards the middle of the slide.

R4's Role in SNMP Development

💧 Facilitate interaction and information sharing

- *SNMP webpage*
- *Annual SNMP Workshops (2010, 2011, 2012)*

💧 http://www.waterboards.ca.gov/losangeles/water_issues/programs/salt_and_nutrient_management/index.shtml

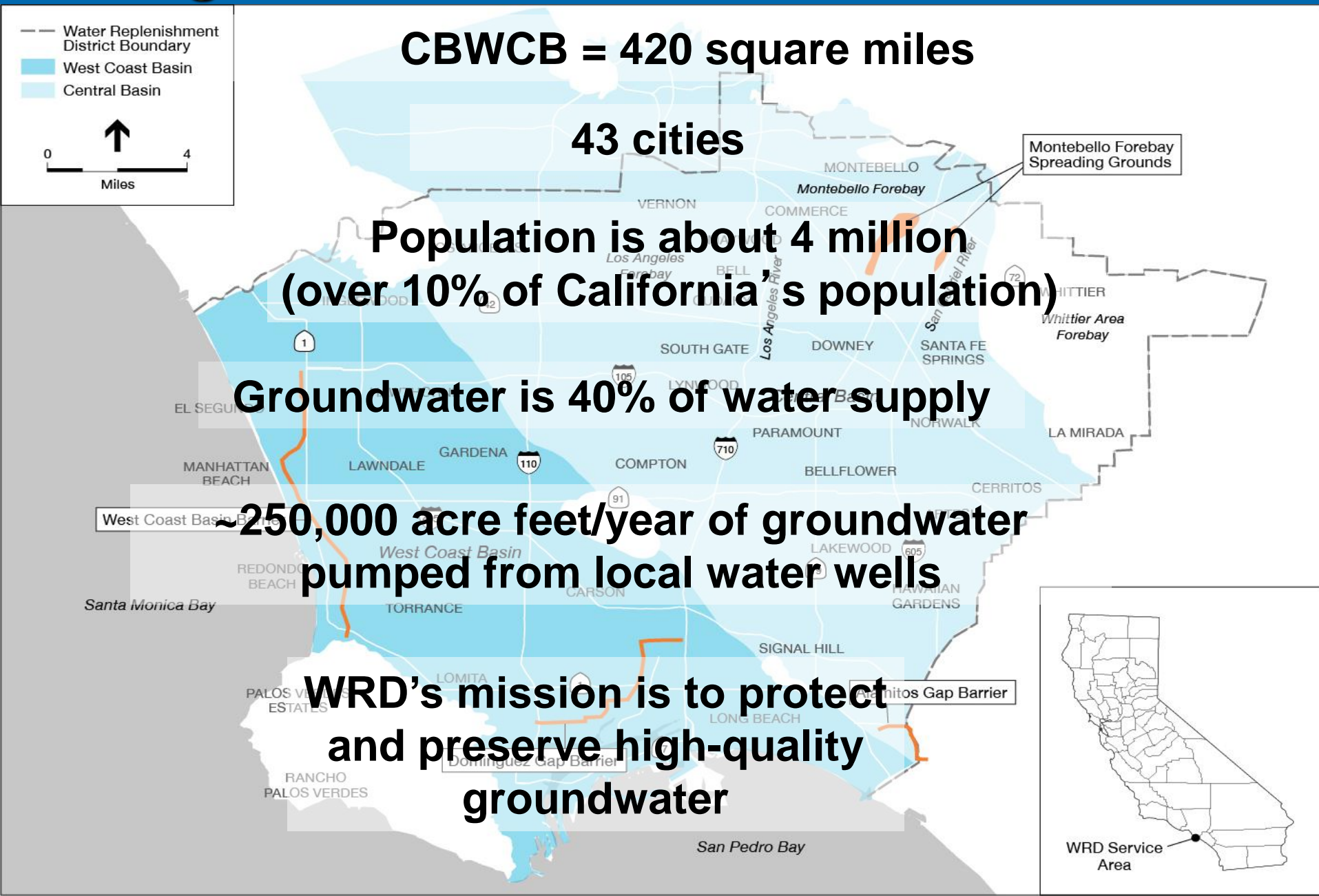
💧 Provide Regulatory Guidance

- *Guidance document (March 2012)*

💧 Technical and Regulatory Oversight

- *Staff contacts for each planning group*

Background of Central & West Coast Basins



CBWCB SNMP Stakeholder Efforts to Date

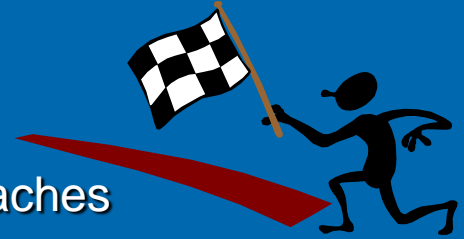
- 💧 2009 – 2010: Researched SNMP guidelines, attended numerous workshops, formed stakeholder group
- 💧 2010 – 2011: Prepared SNMP Workplan
- 💧 December 2011: Received LARWQCB approval of SNMP Workplan
- 💧 May 2012: Retained technical consultant to assist in preparation of SNMP
- 💧 June 2012 – Feb 2013: Compiling & evaluating data, coordinating with ongoing regional planning efforts, stakeholder workshops, technical memorandums, project website (www.wrd.saltnutrient.com)



CBWCB SNMP Accomplishments & Goals

Completed the following elements of the SNMP:

- ✓ **Oct 2012** – Established key concepts, definitions, approaches
- ✓ **Nov 2012** – Defined salt/nutrient goals & objectives, identified current/planned management measures (projects)
- ✓ **Dec 2012** – Identified all sources of salts/nutrients, evaluated historical/current water quality, calculated current salt/nutrient loading
- ✓ **Jan 2013** – Calculated assimilative capacity of the basins
- ✓ **Feb 2013** – Estimated future water quality and salt/nutrient loading, conducted anti-degradation analysis



Next tasks / goals:

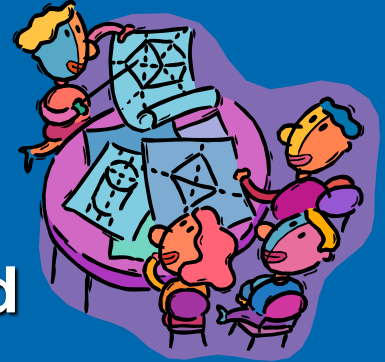
- ✓ **March 2013** – Develop basin-wide water quality program, including CECs
- ✓ **April 2013** – Identify current and future implementation measures to manage salts/nutrients
- ✓ **May/June 2013** – Complete draft SNMP and begin CEQA analysis
- ✓ **May 2014** – Adoption of final SNMP by LARWQCB as Basin Plan Amendment



CBWCB SNMP Challenges

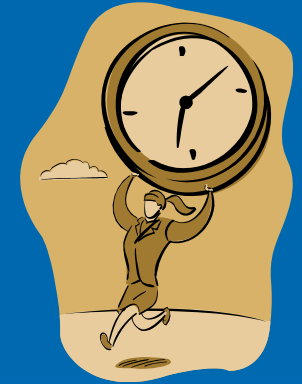
- 💧 Stakeholder outreach

- Keep stakeholders involved and informed



- 💧 Stakeholder process requires a lot of time

- Want to stay within budget (~\$500,000) and on schedule

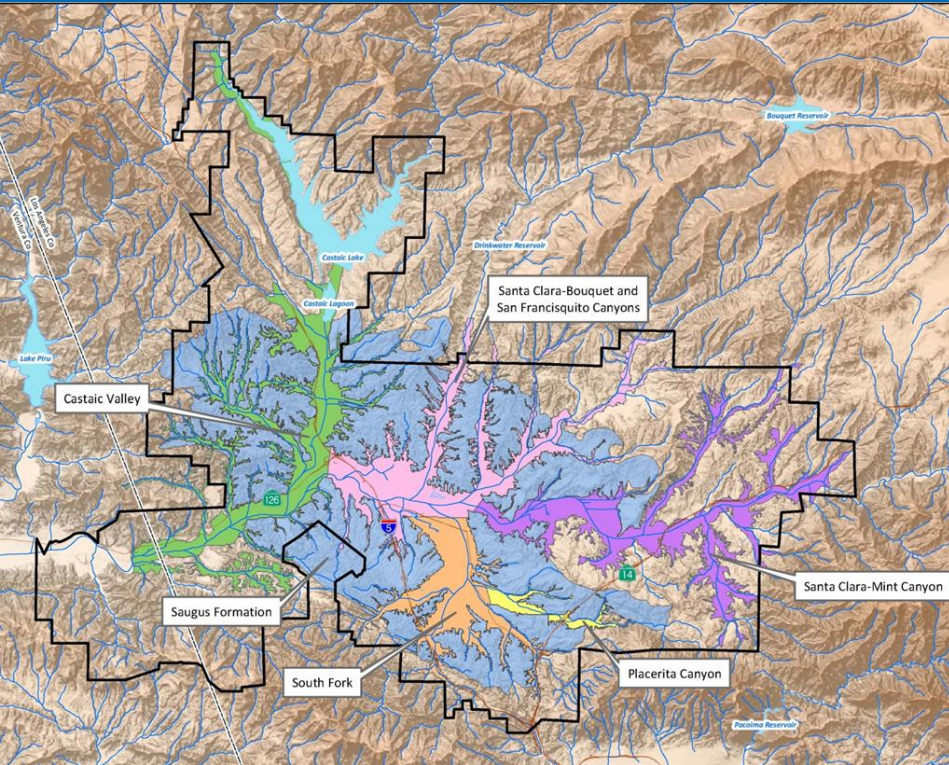


- 💧 Funding

- Trying to establish stakeholder cost sharing agreements and find other sources of funding



Upper Santa Clara River Basin_1



Subunits of the Upper Santa Clara River Basin: Castaic Valley, Santa Clara-Mint Canyon, Santa Clara Bouquet and San Francisquito Canyon, South Fork, Placerita Canyon, Saugus Formation

Water Quality Issues:

- *chloride, TDS, nitrate, perchlorate contamination*

Projected Recycled Water Use:

- *3,050 AFY by 2020*
- *9,600 AFY by 2030*

SNMP Status

- *IRWMP Funding*
- *Stakeholder Group –Oct 2011*
- *Determined Ambient Basin WQ*
- *Quantified Nutrient Sources*
- *Developing Monitoring Program*
- *Developing Management Strategies*

Expected Completion Date:

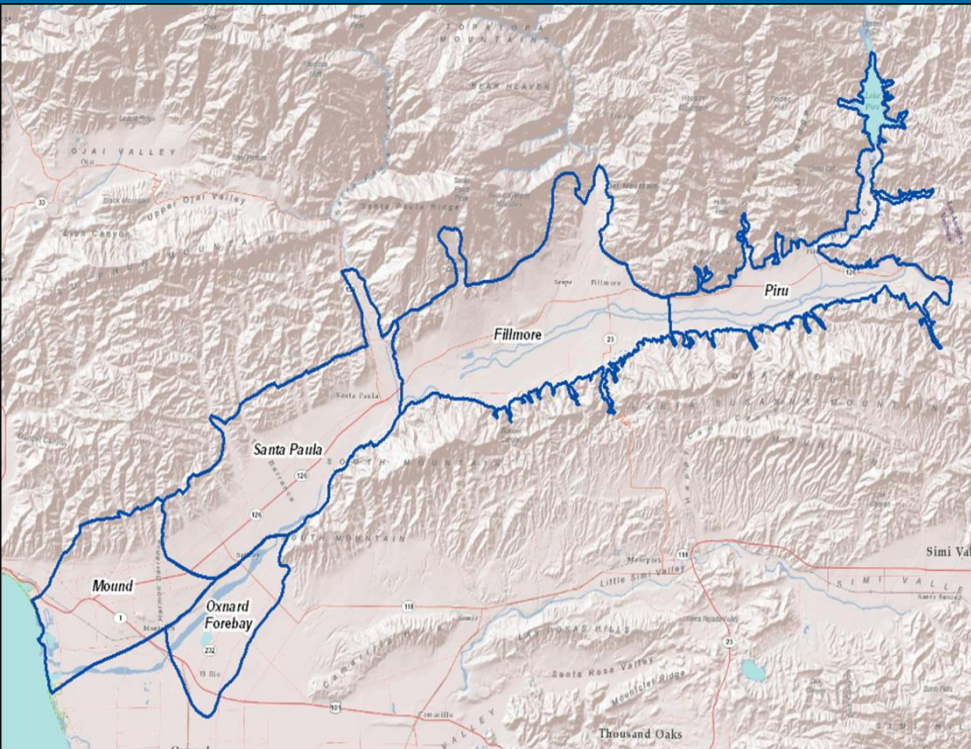
- *May 2014*

Upper Santa Clara River Basin_2

💧 **SNMP Issues identified by Stakeholders**

- *Water quality issues; chloride, TDS, nitrate, and perchlorate contamination.*
- *High cost of producing and supplying recycled water*
- *Increasing water demand and decreasing imported water supply reliability.*
- *Runoff and drainage issues related to urbanizing areas in the floodplain.*
- *Increased regulatory compliance burden to limit pollution in stormwater runoff.*
- *Septic areas*
- *Areas requiring monitoring wells*

Lower Santa Clara River Basins_1



Groundwater Basins included in Lower Santa Clara SNMP: Oxnard Forebay, Mound, Santa Paula, Fillmore, Piru

💧 Water Quality Issues

- *Nitrates, TDS, Salts, PCBs, DDT*

💧 SNMP Status

- *Stakeholder Group 2011 – Quarterly Meetings*
- *Cost Sharing MOUs in progress*
- *Coordination with other SNMP Developers*
- *IRWMP Funding /Selection of consultant 2012*

💧 Expected Completion Date:

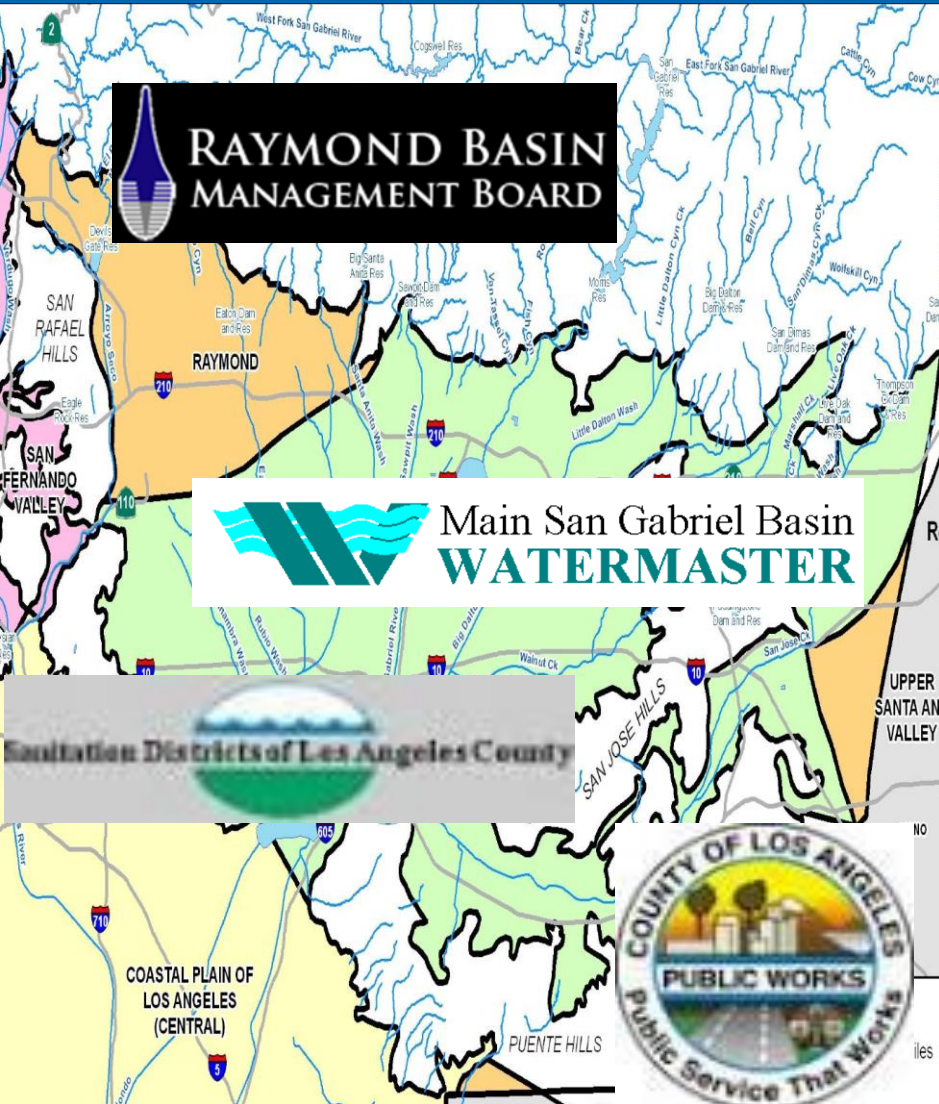
- *April 2014*

Lower Santa Clara River Basins_2

💧 **SNMP Challenges identified by Stakeholders**

- *Groundwater WQOs are already exceeded in some basins,*
- *Influent water quality (chlorides) from USCR basins,*
- *Application of Recycled/Brine Disposal from POTWs (Piru, Fillmore, Santa Paula, and Ventura),*
- *State water from Lake Piru (can have elevated chlorides during dry years),*
- *Strong agricultural presence in LSCR basins (irrigation return flow, nutrients),*
- *Water users rely on GW for >65% of water supply*

Raymond and San Gabriel Basins



WQ Issues

- *Nitrates, VOCs, SVOCs*

SNMP Status

- *SNMP Outline Approved*
- *Preliminary Salt & Nutrient Loading analysis*
- *Assimilative Capacity Determination*

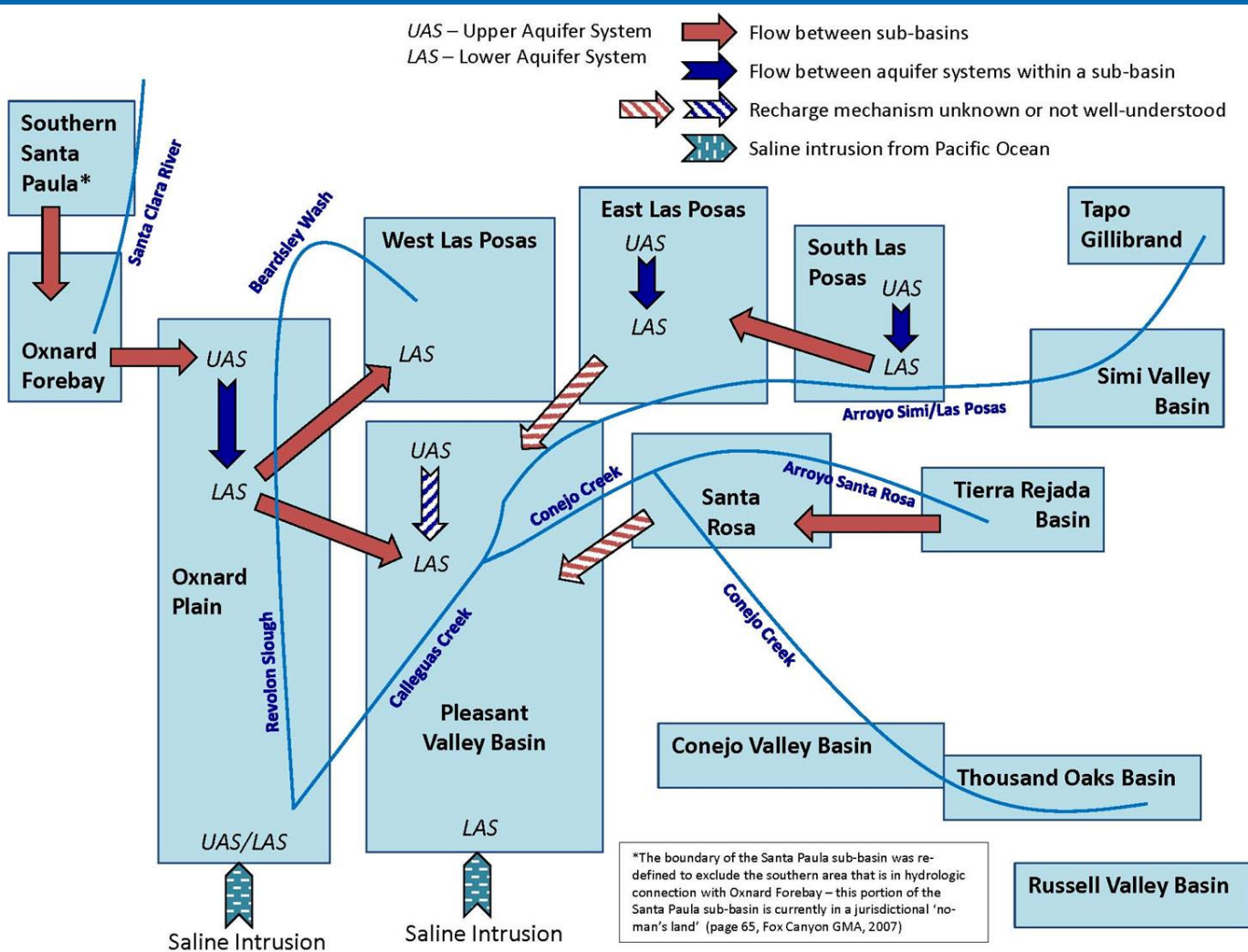
Next Steps

- *Basin Characterization*

Estimated Completion Date:

- *May 2014*

Calleguas Creek Watershed



Basins underlying the Calleguas Creek Watershed

Water Quality Issues: *Nitrates, TDS, Salts*

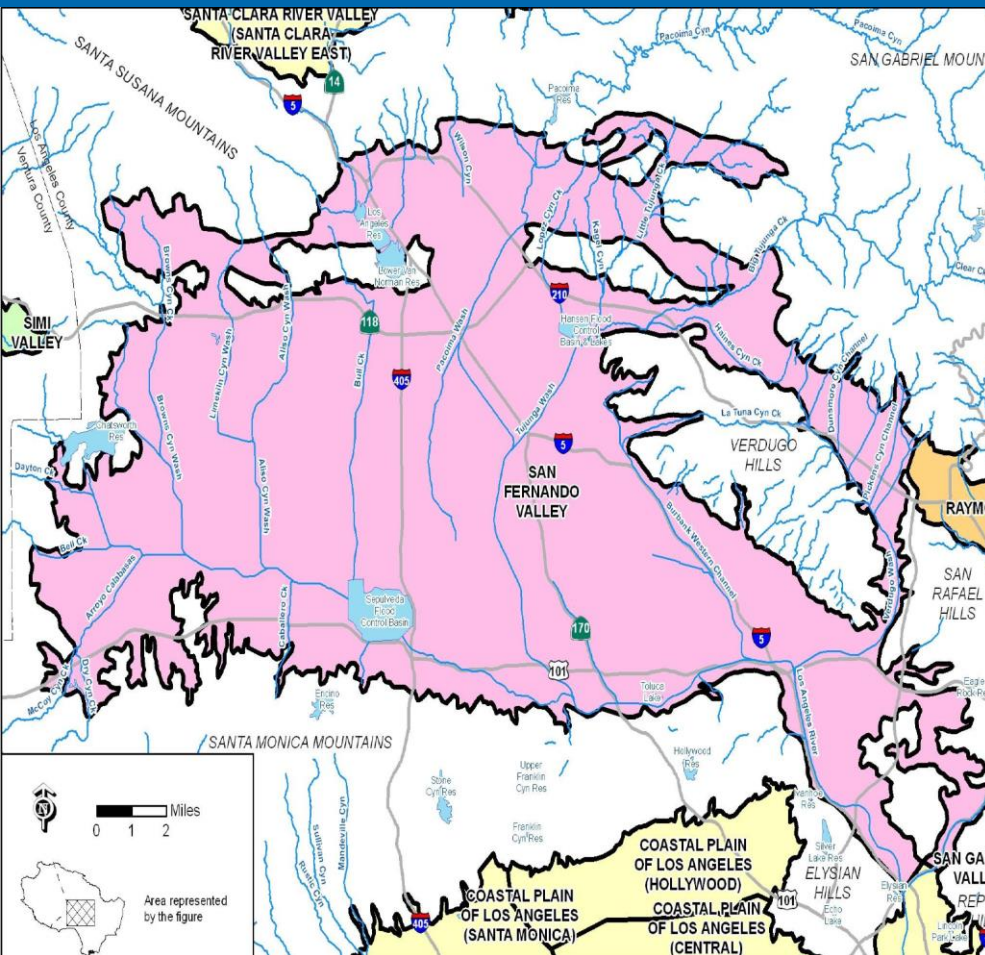
Pre-existing TMDL Stakeholder Group

Goal: *Coordinate TMDL strategies & Recycled Water Policy*

Status: *Finalizing Work Plan*

Expected Completion Date: *mid 2014*

San Fernando Valley Basin



Water Quality Issues

- *VOCs, SVOCs, Chromium, Nitrates*

SNMP Status

- *ULARA Watermaster (lead)*
- *SNMP Outline Approved (Feb 2013)*

Other Considerations

💧 Priority Basins not yet addressed

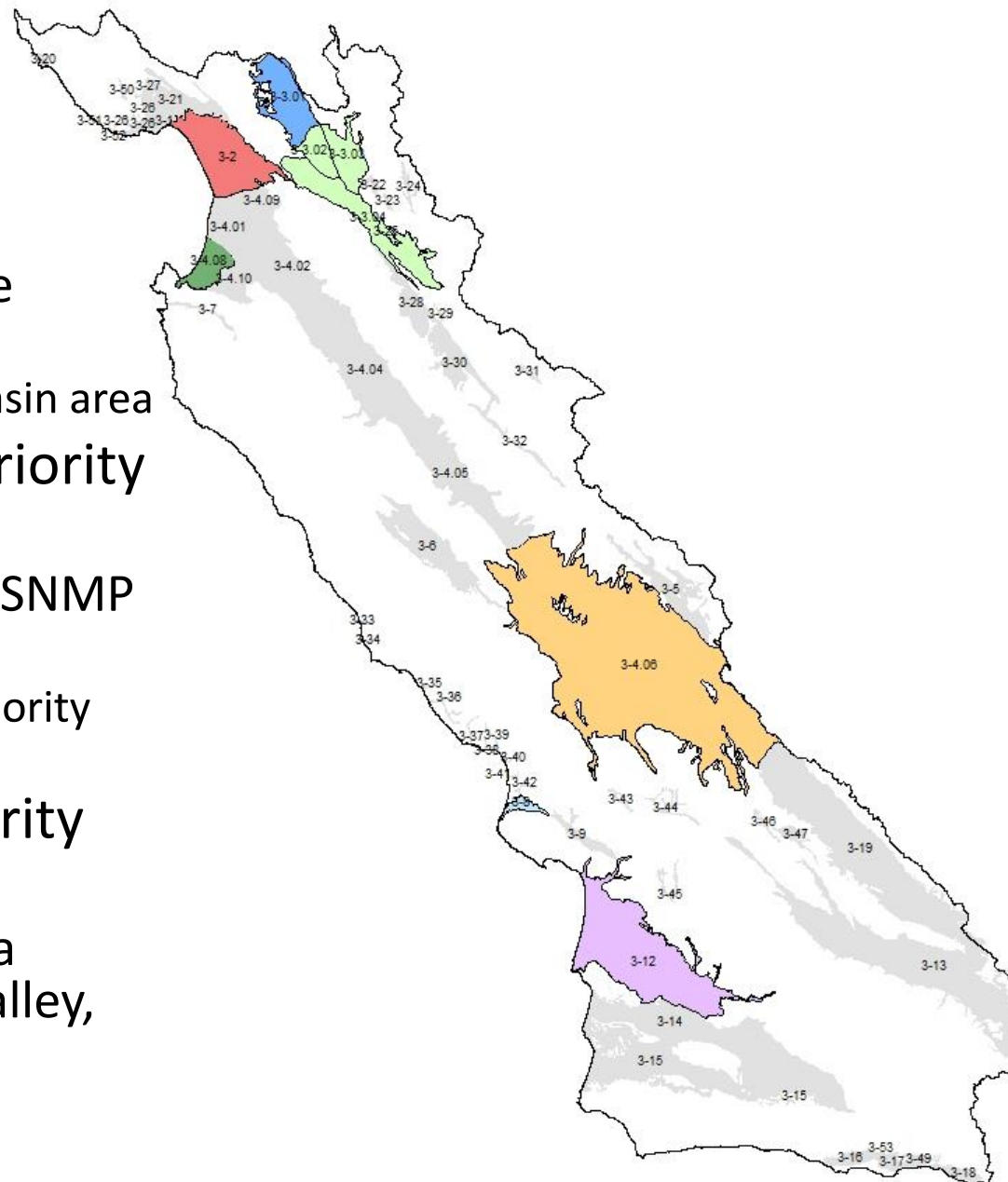
- ***Hollywood Basin***
 - Limited activity, Drinking Water wells operated by City of Beverly Hills
 - No Recycled Water Plans, no artificial recharge
- ***Santa Monica Basin***
 - Limited activity, Drinking Water wells operated by City of Santa Monica
- ***Ventura / Ojai Basins***
 - Working to identify lead agency

💧 SNMP Issues of Concern

- ***Stakeholder Participation***
- ***Funding, Cost Sharing***
- ***Addressing Recycled Water Use in Basins where WQO have already been exceeded***

Central Coast Region Summary

- 60 Basins/Sub Basins
 - Overall 10 of 60 Basins are covered by SNMP efforts
 - Equals 58% of the total Basin area
- 21 of 60 Basins are high priority per GAMA
 - 7 of 21 Basins covered by SNMP efforts
 - Equals 68% of the high priority Basin area
- Action lacking in high priority Ag areas/basins
 - e.g. Salinas Valley, Cuyama Valley, Santa Ynez River Valley, etc.



Region 3 SNMP Actions

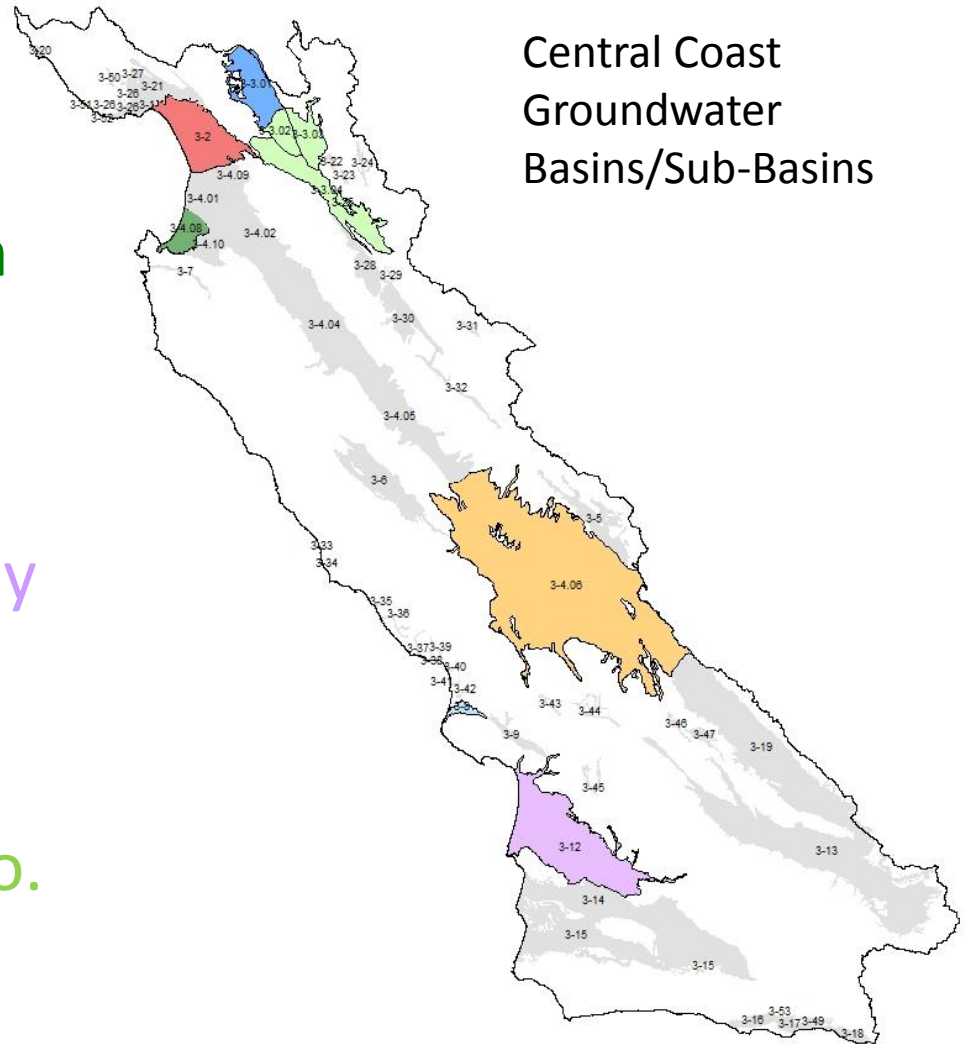
- Outreach/kickoff meetings (north and south)
- Expanded SNMP elements document
- Webpage
- Presentations
- Water Board staff SNMP liaisons (x3)
 - attending meetings & reviewing documents
- Waste Discharge Requirements prioritization
- Regional monitoring coordination
- Ag Order implementation

R3 SNMP Projects/Areas

Active SNMP Efforts:

- Los Osos Valley
- Seaside Area Sub-Basin
- Pajaro Valley
- Paso Robles Area
- Santa Maria River Valley
 - San Luis Obispo County
 - Santa Barbara County
- Northern San Benito Co.
- Llagas Areas Sub-Basin

Central Coast
Groundwater
Basins/Sub-Basins



R3 Groundwater Basins/Sub-Basins

3-1 Soquel Valley

3-2 Pajaro Valley

3-3 Gilroy-Hollister Valley

3-3.01 Llagas Area

3-3.02 Bolsa Area

3-3.03 Hollister Area

3-3.04 San Juan Bautista Area

3-4 Salinas Valley

3-4.01 180/400 Foot Aquifer

3-4.02 East Side Aquifer

3-4.04 Forebay Aquifer

3-4.05 Upper Valley Aquifer

3-4.06 Paso Robles Area

3-4.08 Seaside Area

3-4.09 Langley Area

3-4.10 Corral de Tierra Area

3-5 Cholame Valley

3-6 Lockwood Valley

3-7 Carmel Valley

3-8 Los Osos Valley

3-9 San Luis Obispo Valley

3-12 Santa Maria River Valley

3-13 Cuyama Valley

3-14 San Antonio Creek Valley

3-15 Santa Ynez River Valley

3-16 Goleta

3-17 Santa Barbara

3-18 Carpinteria

3-19 Carrizo Plain*

3-20 Ano Nuevo Area*

3-21 Santa Cruz Purisima Formation

3-22 Santa Ana Valley*

3-23 Upper Santa Ana Valley*

3-24 Quien Sabe Valley*

3-25 Tres Pinos Valley

3-26 West Santa Cruz Terrace

3-27 Scotts Valley

3-28 San Benito River Valley

3-29 Dry Lake Valley*

3-30 Bitter Water Valley*

3-31 Hernandez Valley*

3-32 Peach Tree Valley*

3-33 San Carpoforo Valley*

3-34 Arroyo de la Cruz Valley*

3-35 San Simeon Valley

3-36 Santa Rosa Valley

3-37 Villa Valley*

3-38 Cayucos Valley*

3-39 Old Valley*

3-40 Toro Valley*

3-41 Morro Valley

3-42 Chorro Valley

3-43 Rinconada Valley*

3-44 Pozo Valley*

3-45 Huasna Valley*

3-46 Rafael Valley*

3-47 Big Spring Area*

3-49 Montecito

3-50 Felton Area

3-51 Majors Creek*

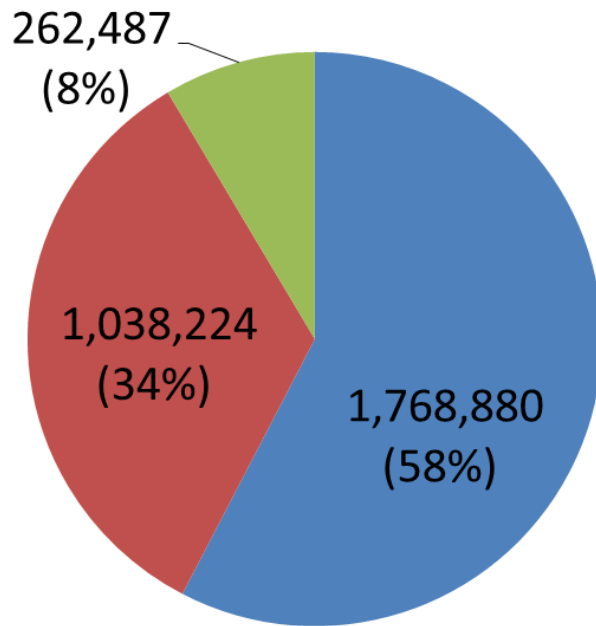
3-52 Needle Rock Point*

3-53 Foothill*

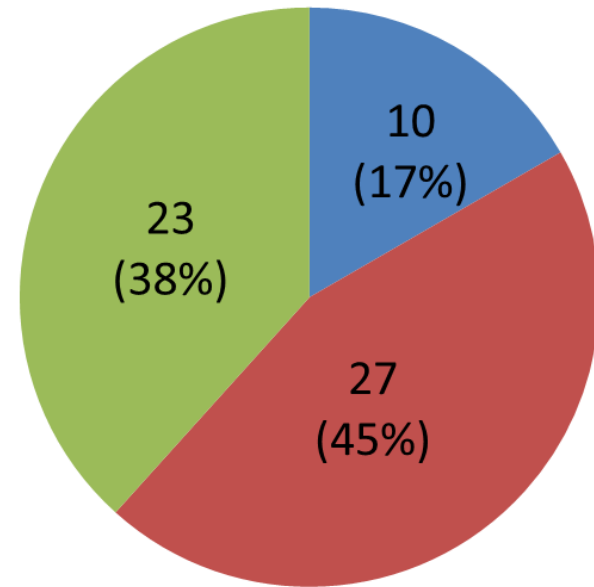
- GAMA Priority Basins/Sub-Basins in **bold/underline**
- Color (grouping) denotes SNMP currently underway
- Asterisk (*) denotes low risk/priority basins/sub-basins

R3 Regional SNMP Coverage

By Acreage



By Number of Basins



■ Basins with SNMP Effort

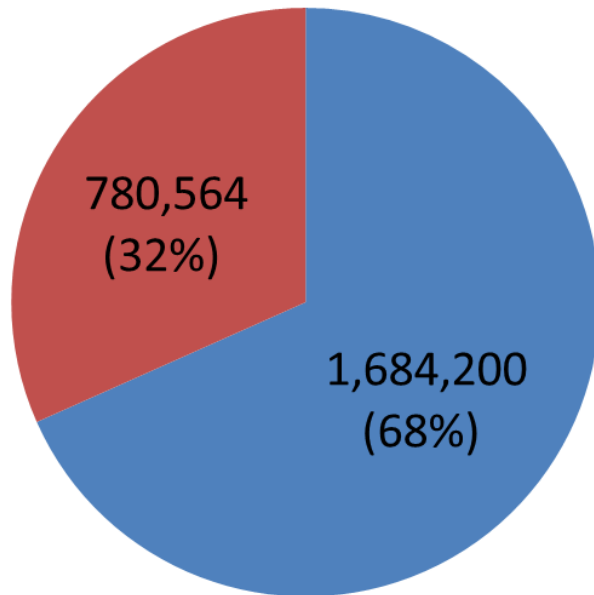
■ Basins without SNMP Effort

■ Low Priority (R3) Basins without SNMP Effort

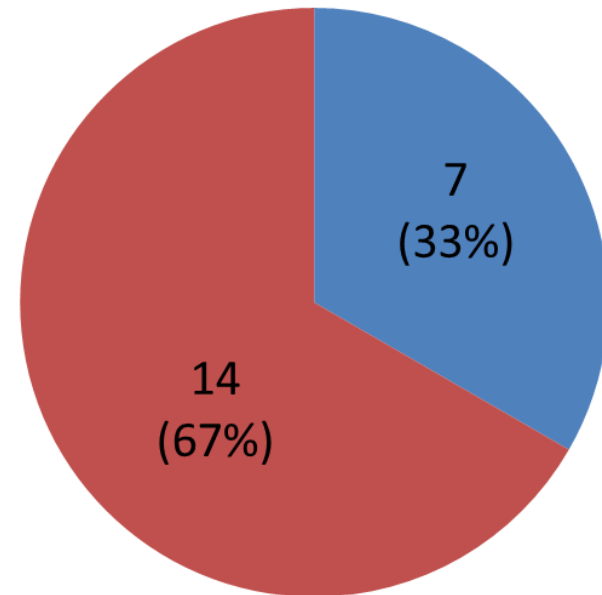
60 basins/sub-basins
3,069,591 acres

R3 GAMA Priority Basin SNMP Coverage

By Acreage



By Number of Basins

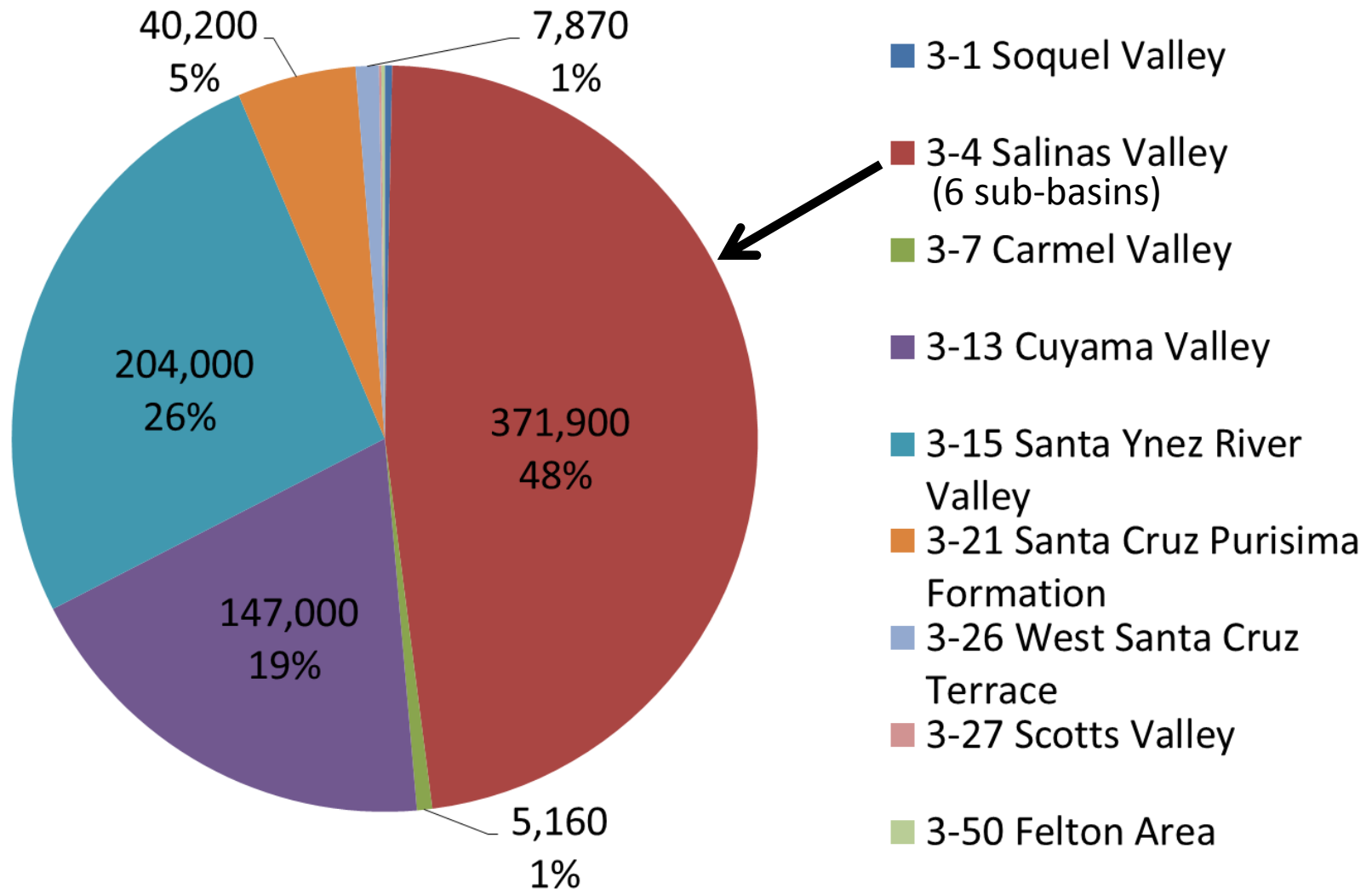


■ Priority Basins with SNMP Effort

■ Priority Basins without SNMP Effort

R3 GAMA Priority Basins w/o SNMP Effort

(by acre and percentage)



R3 Regional Challenges

- Action lacking in high priority Ag areas/basins
 - e.g. Salinas Valley, Cuyama Valley, Santa Ynez River Valley, etc.
- Agricultural stakeholder involvement
 - Ag is primary loading source in most areas
- Funding and resource shortfalls
- Water Quality Objectives (Basin Specific)
 - Lacking in some areas & questioned in others
- CEQA – Stakeholder uncertainty & reluctance
- Database

Region 3 SNMP Actions

- Outreach/kickoff meetings (north and south)
- Expanded SNMP elements document
- Webpage
- Presentations
- Water Board staff SNMP liaisons (x3)
 - attending meetings & reviewing documents
- Waste Discharge Requirements prioritization
- Regional monitoring coordination
- Ag Order implementation

Implementing the Recycled Water Program in the San Francisco Bay Region



Dyan Whyte
Assistant Executive Of
California Regional Water Quality
San Francisco Bay Po

**200 Billion Gallons of
Wastewater Generated
Annually**

**Wastewater
Discharged
(million gallons/year)**

• <100

• 100-1000

• 1000-3000

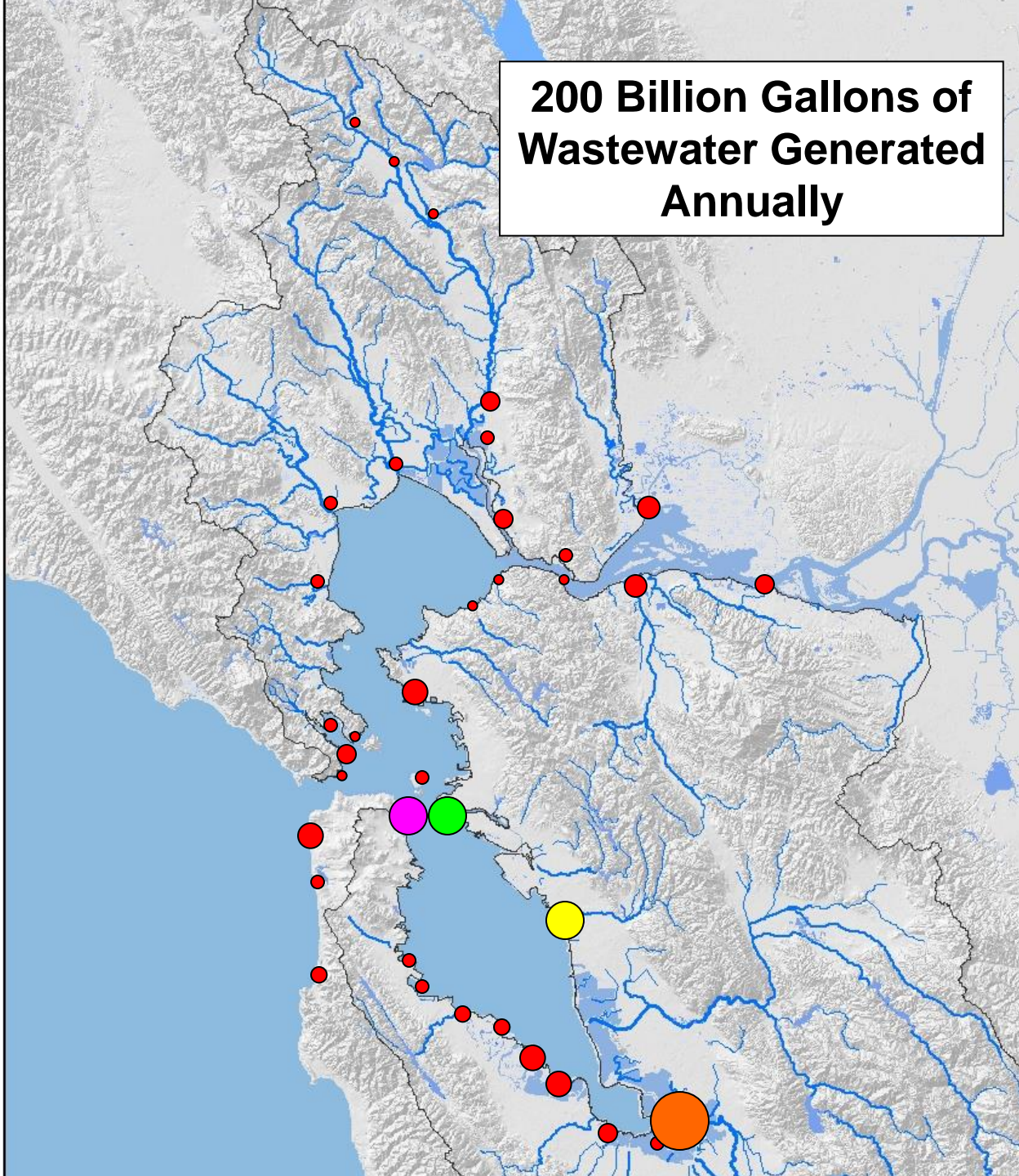
• 3000-7000

● EBMUD 23,700





● EBDA 25,300

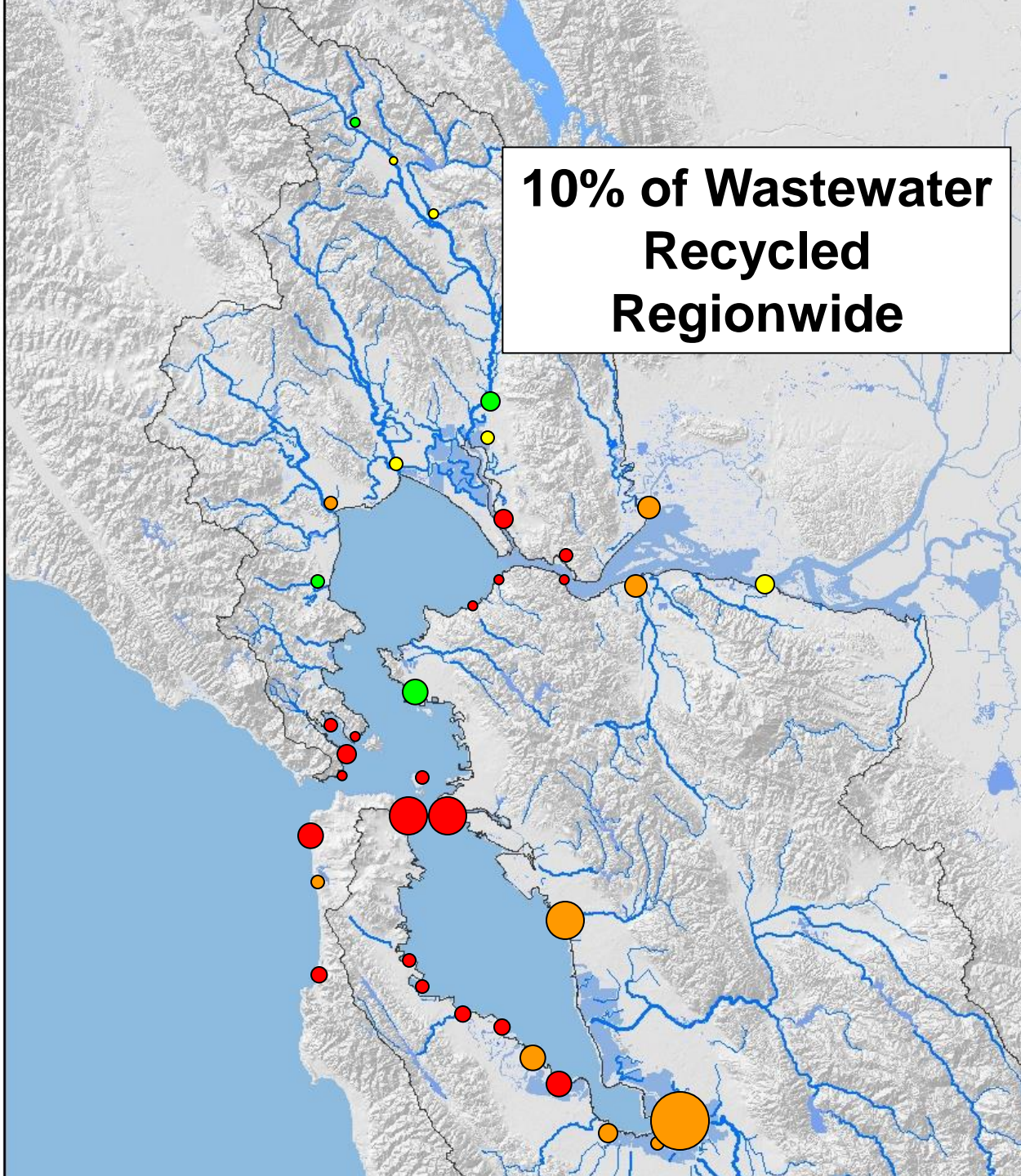
● San Francisco
Bayside 25,100

● San Jose/Santa Clara
36,800







10% of Wastewater Recycled Regionwide

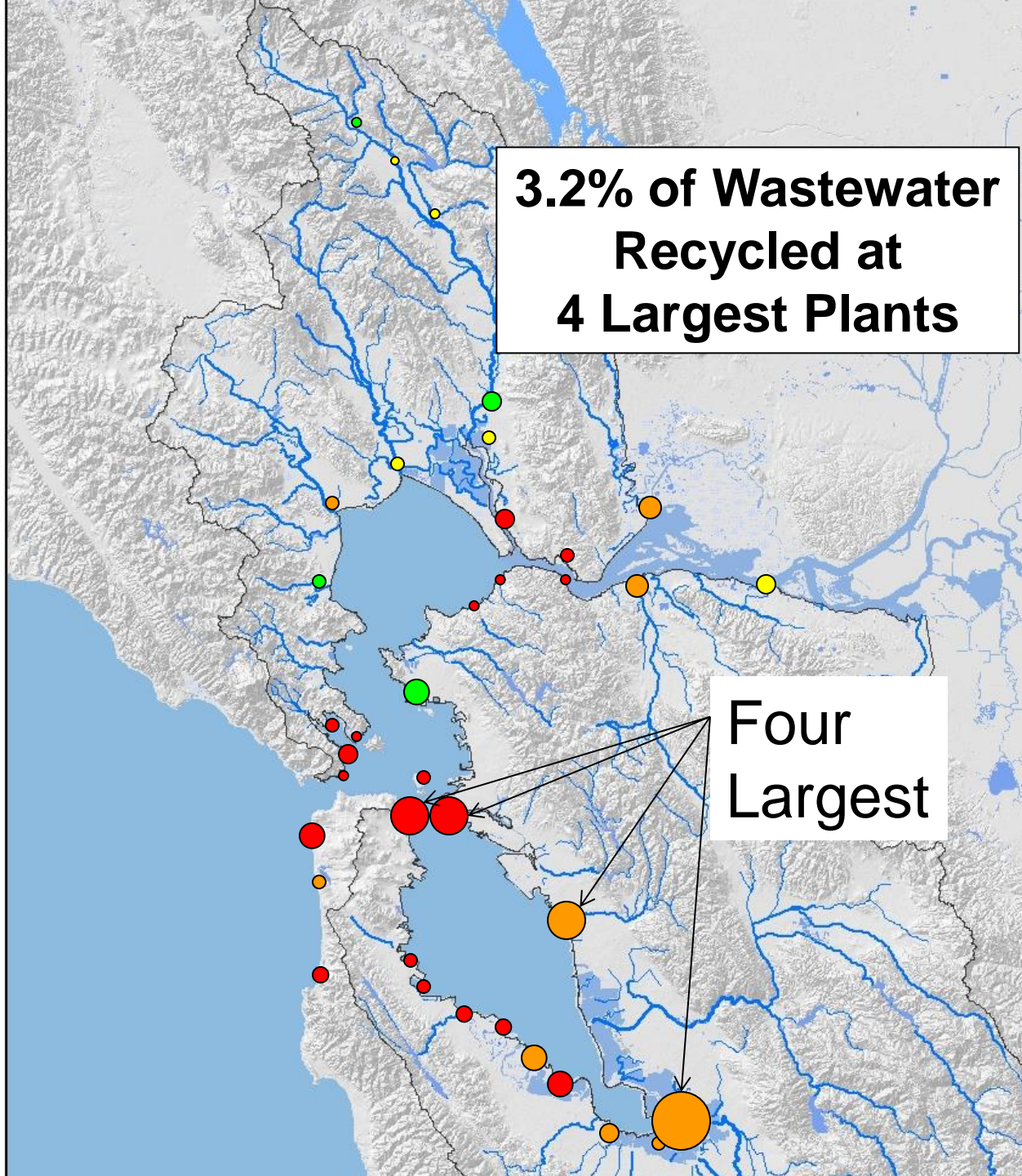
-  <1% Recycling
-  1-10% Recycling
-  10-40% Recycling
-  40-100% Recycling

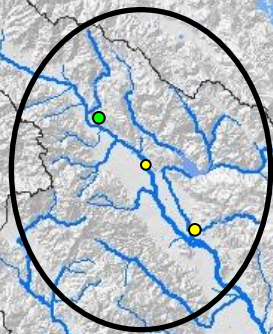


**3.2% of Wastewater
Recycled at
4 Largest Plants**





-  <1% Recycling
-  1-10% Recycling
-  10-40% Recycling
-  40-100% Recycling

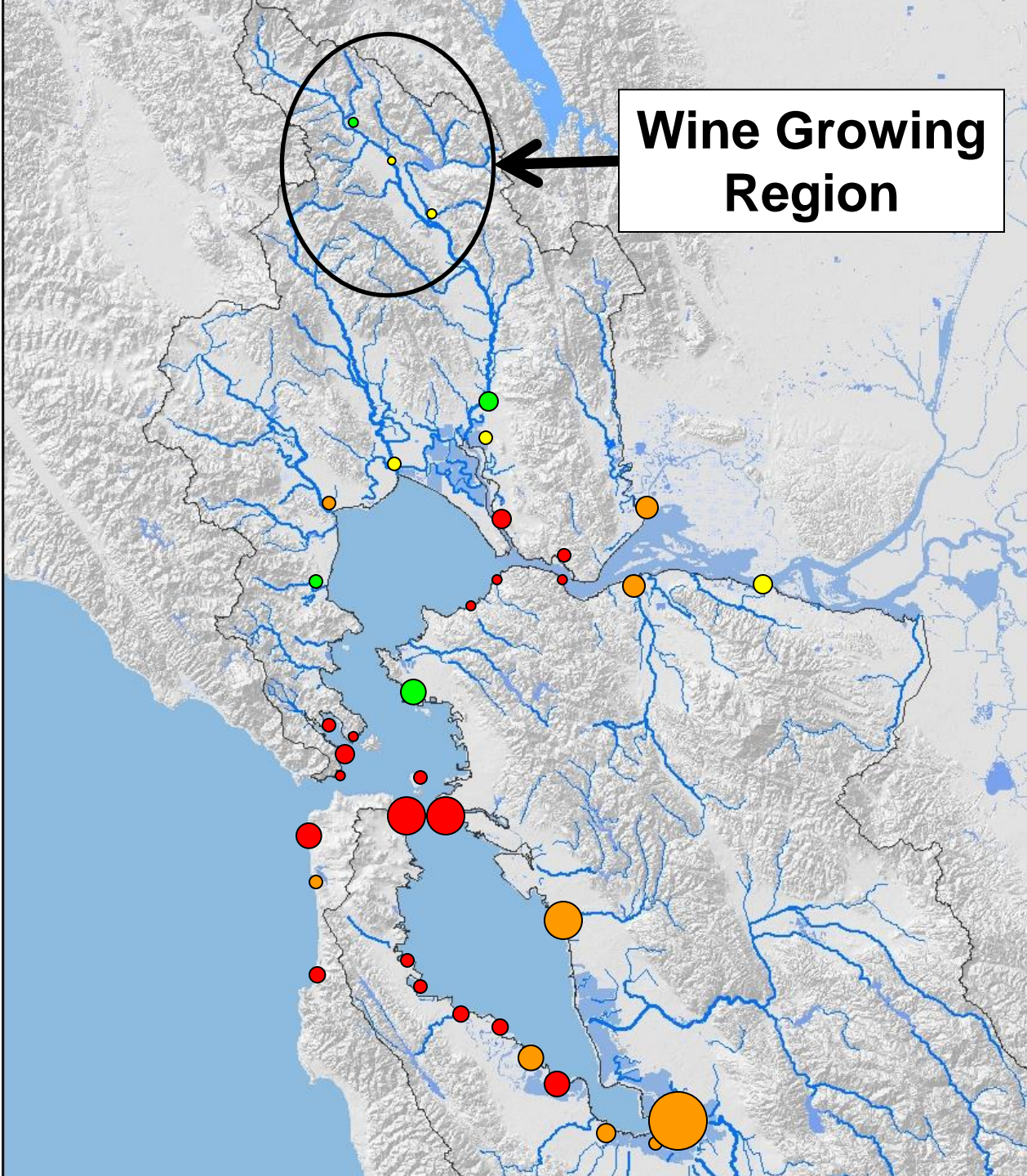
**Four
Largest**





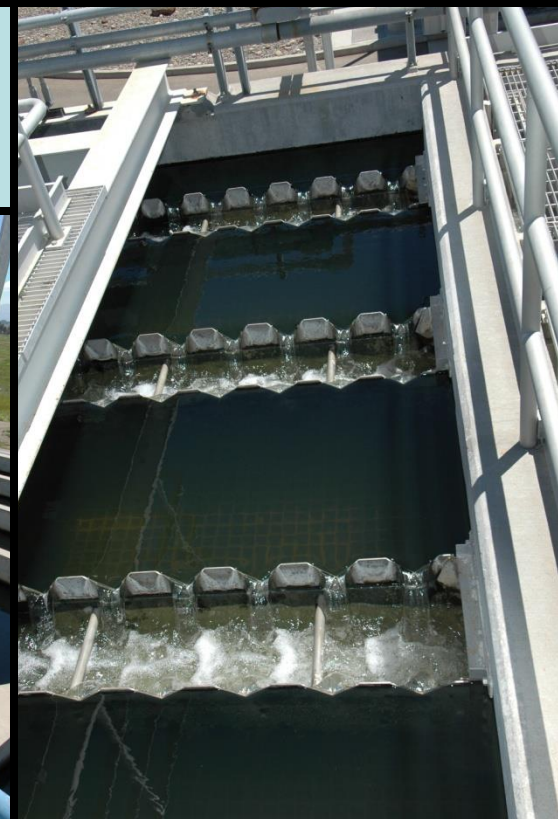
**Wine Growing
Region**

-  <1% Recycling
-  1-10% Recycling
-  10-40% Recycling
-  40-100% Recycling

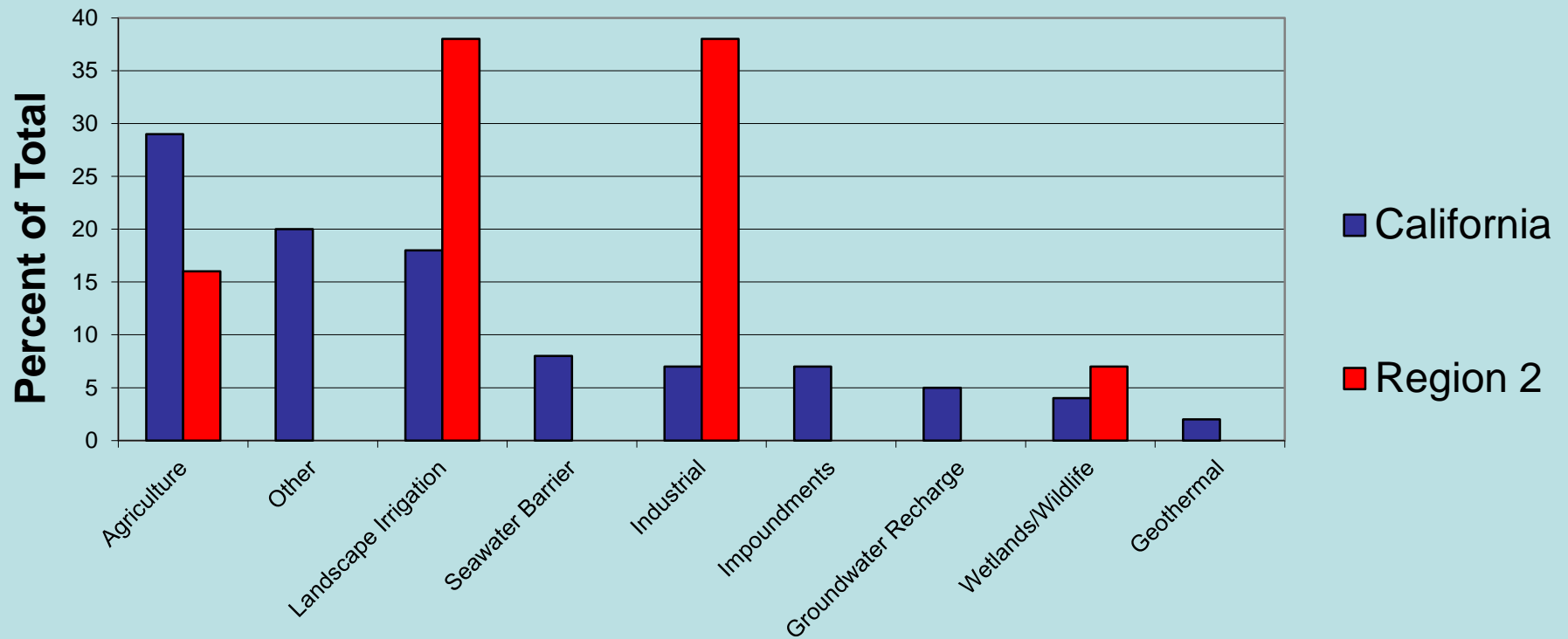




35 Water Recycling Treatment Plants



2009 Recycled Water Usage



Cooling Towers for a
Power Plant in Pittsburg



Industrial
Uses
15,000 AFY

Richmond
Advanced
Recycling
Expansion (RARE)



Agricultural Uses 5500 AFY

← Administration
Tasting Room →
Shipping/Receiving →

RECYCLED WATER
USED HERE



Landscaping
Uses
16,000 AFY



More Landscaping

Community Garden in San Jose



Commercial Uses – 3700 AFY

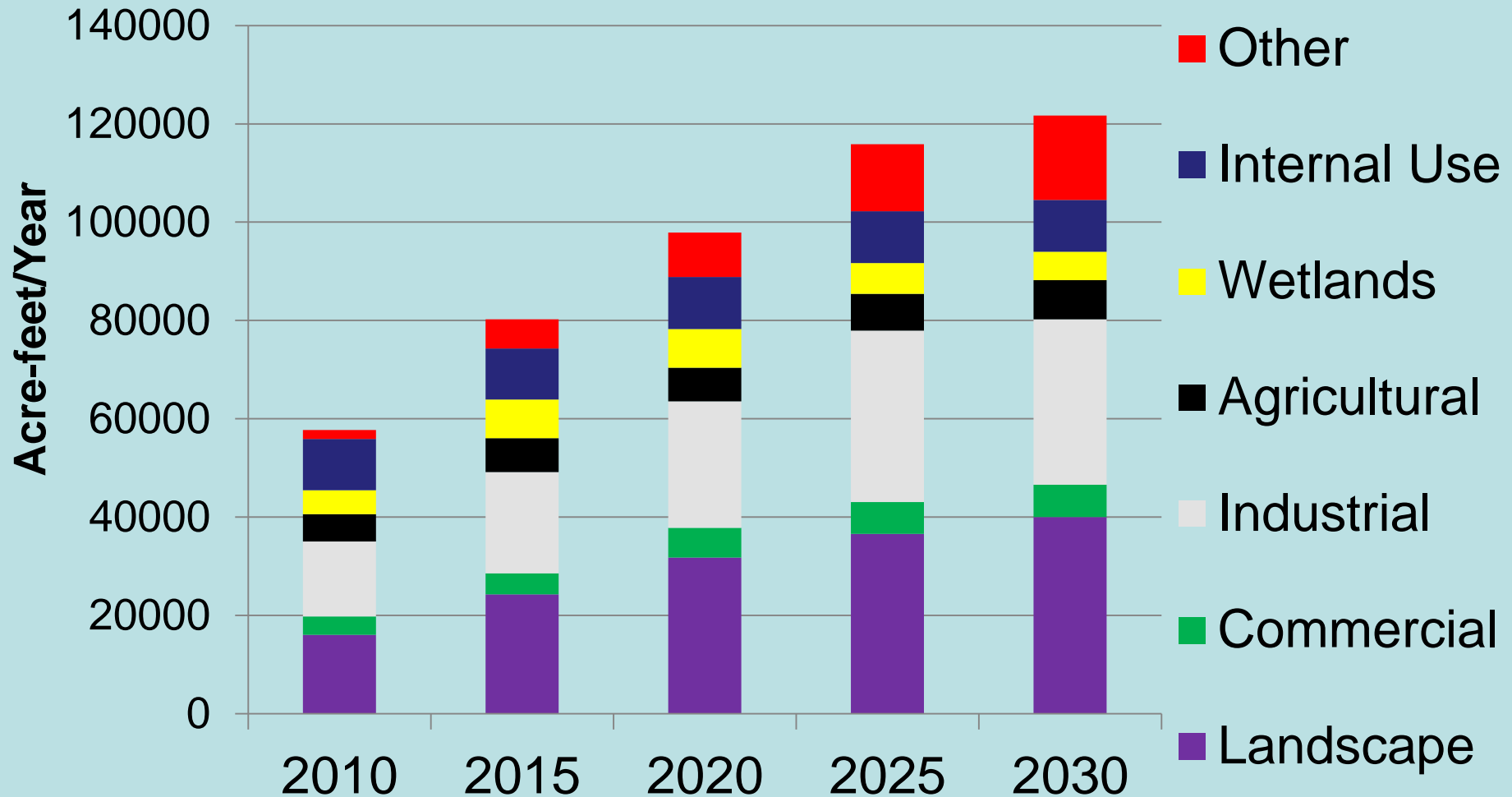




Managed Wetlands
4900 AFY



Water recycling rate projected to double by 2030



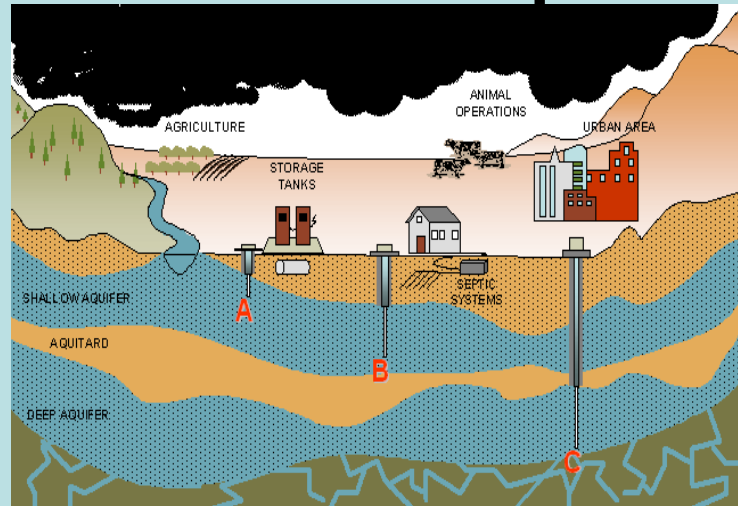
Source: 2011 BACWA Survey

Impediments Mostly Economic



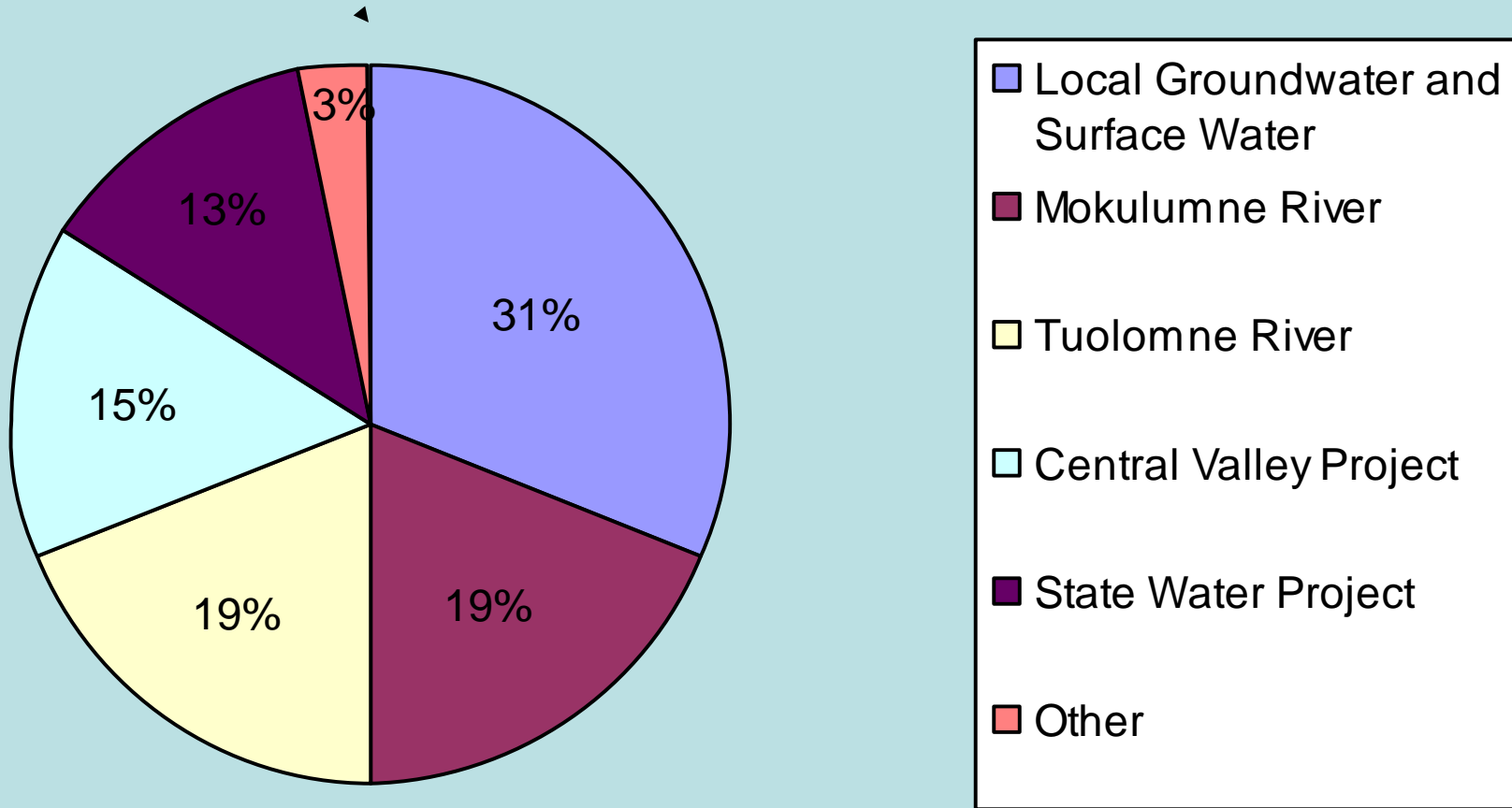
- Expensive infrastructure
- Existing potable supplies relatively inexpensive
- Financing in short supply
- Public perception

Protecting Groundwater Supplies from Salt and Nutrient Impacts



- Salt Water Intrusion Management
- Conjunctive Use & Groundwater Management
- Nutrient Source Control

San Francisco Bay Region Water Supply Sources



Source: San Francisco Bay Area
Integrated Regional Waste Management Plan, Nov 2006

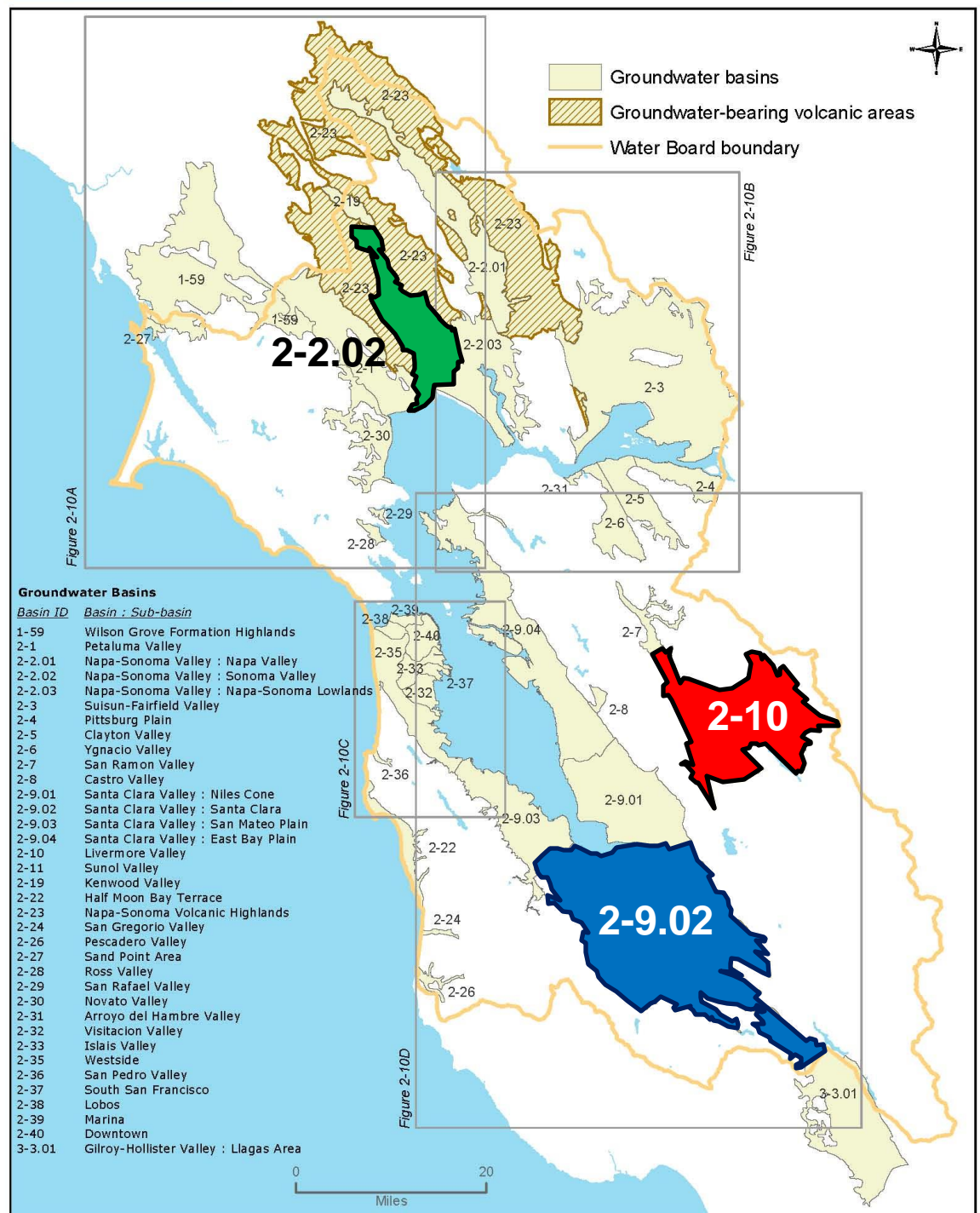
San Francisco Bay Region

Initial SNMP Priority Basins

2-9.02: Santa Clara Valley

2-10: Livermore Valley

2-2.02: Sonoma Valley



Salt/Nutrient Management Plan (SNMP) Schedule

Who?	Does what?	When?
<ul style="list-style-type: none"> • Santa Clara Valley Water District • Zone 7 • Sonoma County Water Agency 	Compile existing-basin specific data	2012
	Identify salt/nutrient sources	
	Collect additional data to develop plan	
	Complete anti-degradation analysis	2013-14
	Complete draft SNMP	
	Draft CEQA documents	
	Submit final SNMP plan to Regional Water Board	2014
Regional Water Board	Adopt basin plan amendment	2015



Conclusion





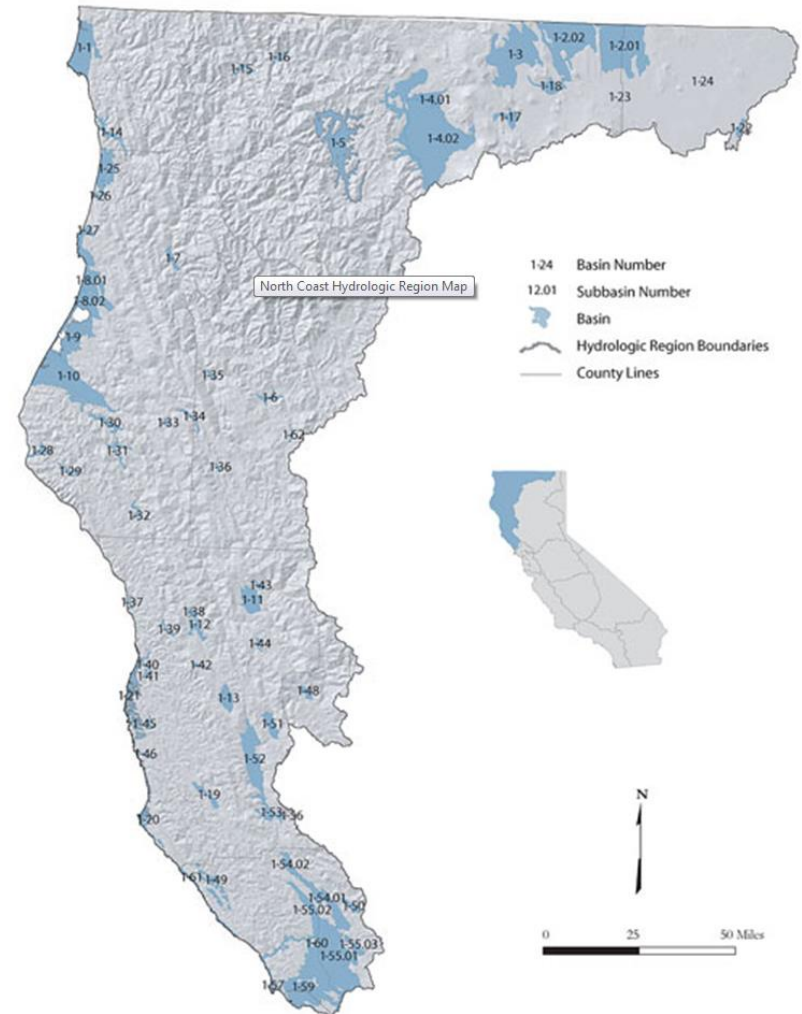
SALT/NUTRIENT MANAGEMENT PLANNING

North Coast Regional Water Board
March 5, 2013

Overview

- Team members
- Salt/nutrient management plans in development
- Programmatic approach to mostly rural region

North Coast Hydrologic Region Map



North Coast SNMP Team

- David Leland – Acting AEO
Supervising WRCE
- Mona Dougherty – Sr. WRCE
Core Regulatory Unit
- Alydda Mangelsdorf – Sr. ES
Basin Planning
- Jeremiah Puget – ES
Basin Planning



Salt/Nutrient Management Planning Progress Report

Region 1: North Coast Regional Water Quality Control Board

Date: February 13, 2013

Stakeholder Group	Santa Rosa Plain Technical Working Group and Stakeholder Advisory Committee	Other 61 Basins
Membership	City of Santa Rosa, City of Cotati, City of Sebastopol, City of Rohnert Park, Town of Windsor, and the Sonoma County Water Agency on behalf of the Airport-Larkfield-Wikiup Sanitation Zone	North Coast Regional Water Quality Control Board
Lead Organization	City of Santa Rosa	North Coast Regional Water Quality Control Board
Lead Group Contact	Christy Kennedy (415) 321-3400 ckennedy@rmcwater.com	Jeremiah Puget (707) 576-2835 Jeremiah.Puget@waterboards.ca.gov
Basins Covered DWR 118 Bulletins	1-55.01 Santa Rosa Plain	Other 61 basins
What Group has Done to Date: (including significant milestones)	<ul style="list-style-type: none"> • Formation of two stakeholder groups: Technical Working Group (local water and wastewater agencies), and Advisory Group (agriculture, recycled water users, private well owners, environmental groups) • Draft SNMP completed. 	<ul style="list-style-type: none"> • Agreement with State Water Board for programmatic approach to these basins, including: action plan with criteria for waste management; permit procedures; monitoring goals; broad source identification; acknowledgement that North Coast groundwater basins do not currently have widespread salt and nutrient problems; pollution prevention methods; and mechanisms for identifying the need to analyze the fate and transport of salt and nutrients, if necessary.

Santa Rosa Plain

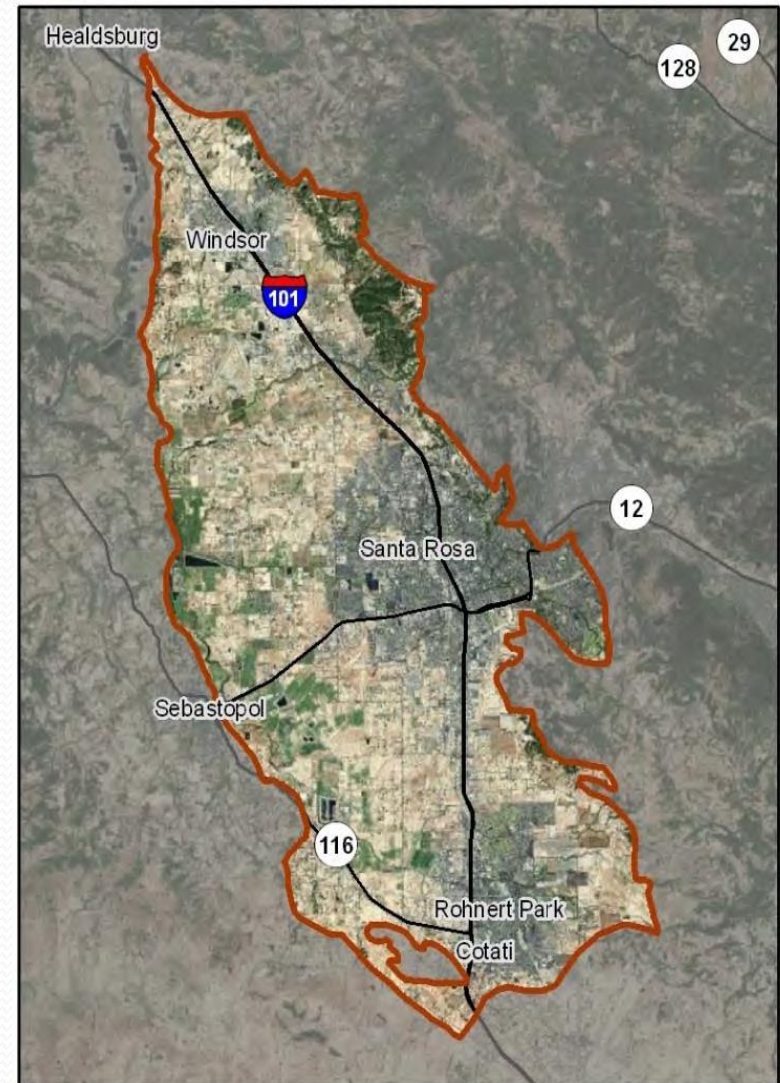
Basin/Sub-Basin 1-55.01

Final SNMP expected March 2013

Based on existing data, City will propose no changes to existing approach to recycled water management.

USGS study of groundwater resources expected in 2013

- a) Comprehensive GIS
- b) Data interpretation and hydrogeologic characterization, and
- c) Development of a fully-coupled numerical surface water/groundwater flow model for Santa Rosa Plain



Regional Setting

The North Coast Region is predominantly rural

- Municipal systems rely on both surface water and groundwater
- Shallow groundwater used extensively for agricultural and domestic supply
- Shallow groundwater important as source of summer flows in perennial streams
- Broad application of process/wastewater to land and for reuse
- But, no evidence of existing salt and nutrient problems regionwide



Regional Approach to Low Risk Basins

We plan to:

- Broadly assess groundwater quality in the Region,
- Evaluate the types and locations of recycled water use in the Region, and
- Evaluate the types and locations of waste discharges to land in the Region.



Regional Approach to Low Risk Basins, cont.

Staff will propose the adoption of an Action Plan into the Basin Plan which establishes:

- An assessment framework for identifying sources/landuse activities with the potential to impact groundwater quality (e.g., salts, nutrients, and CECs)– and other basins requiring an SNMP;
- A permitting framework for controlling sources that meet certain characteristics or thresholds; and,
- A monitoring framework for assessing program success.



NEXT STEPS

- Santa Rosa Plain SNMP due to be completed in March 2013.
- Coordinate with State Board and other Regions on the development of the programmatic approach to salt and nutrient management.
- CEQA Scoping of Groundwater Protection Amendment in mid-2013, including programmatic approach to salt and nutrient management.
- Implement stakeholder outreach strategy 2013-2014
- Proposed Basin Plan Amendment 2014.



Questions?

